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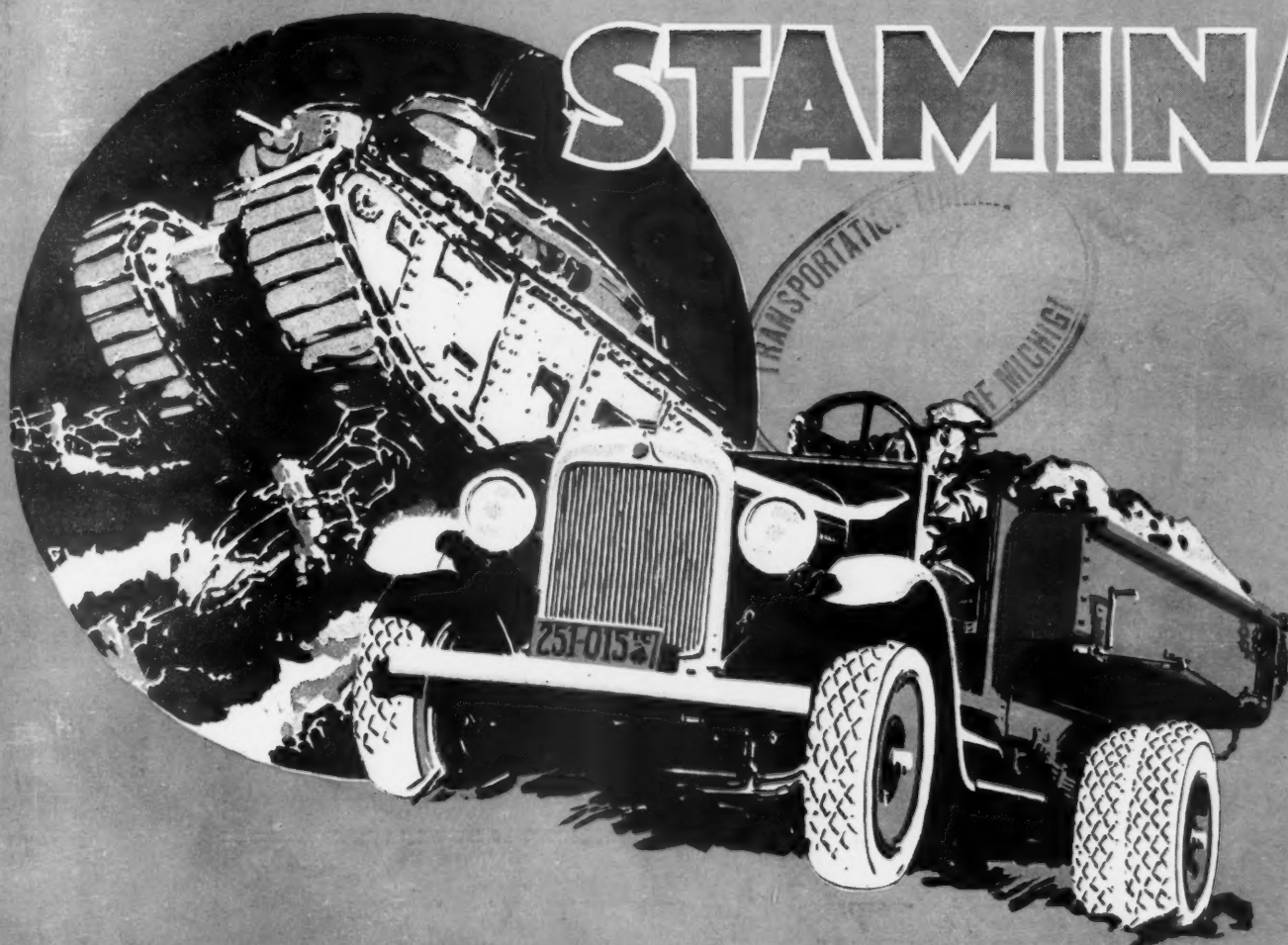
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THE COMMERCIAL CAR JOURNAL

A Chilton Class Journal Publication

MARCH 1928

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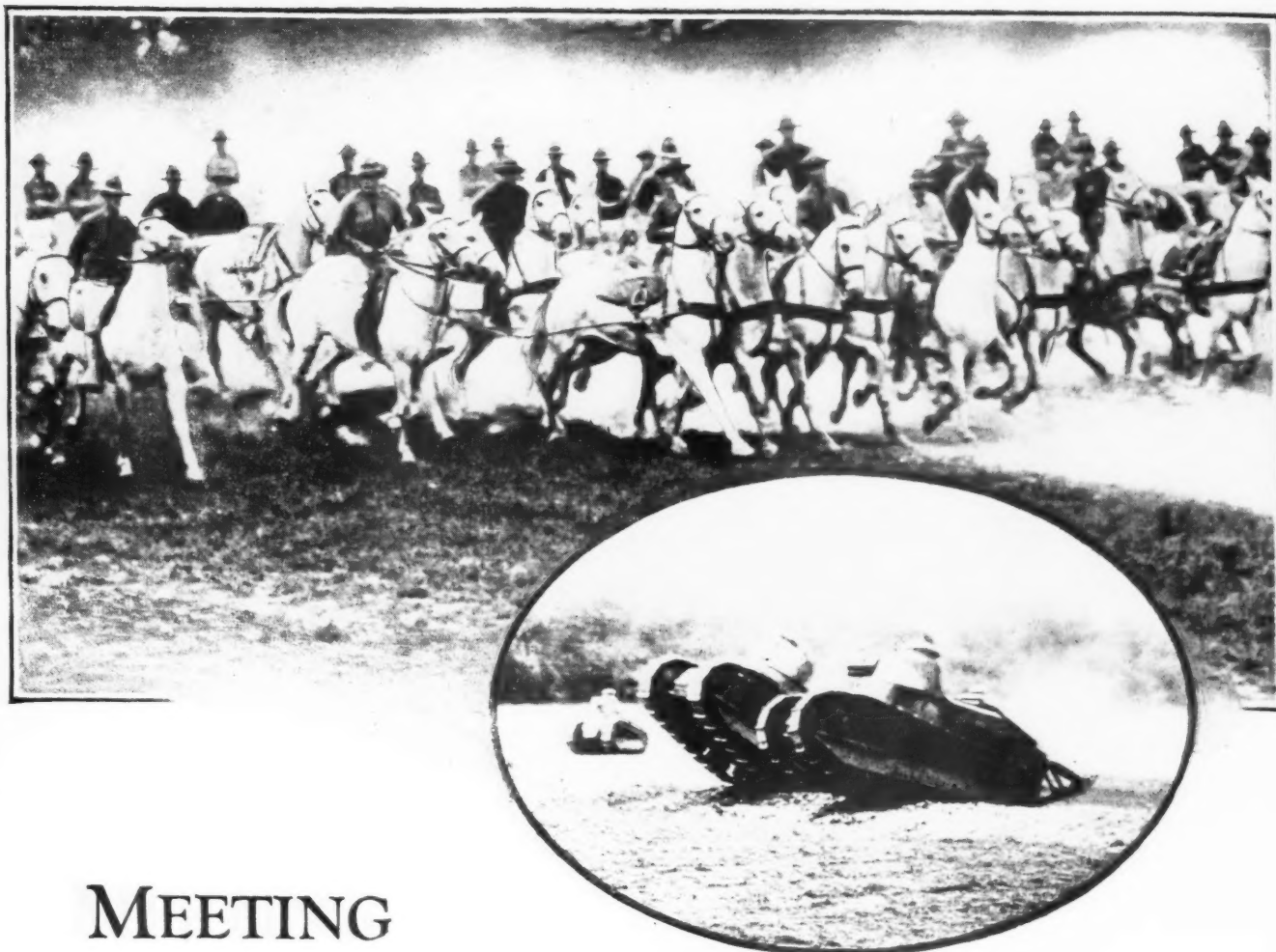


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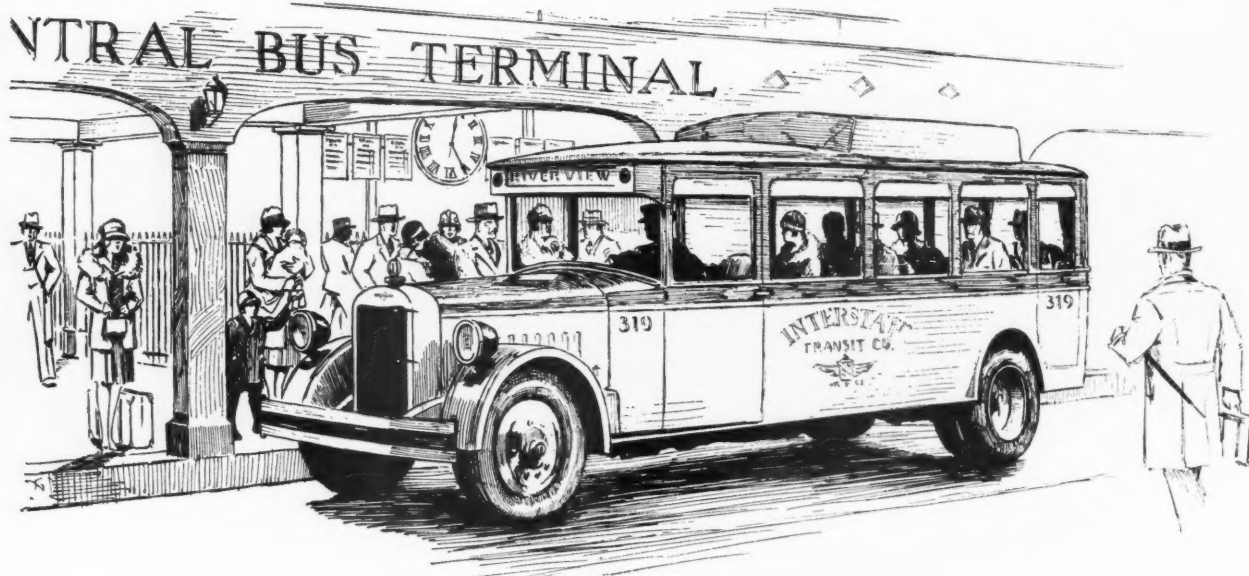


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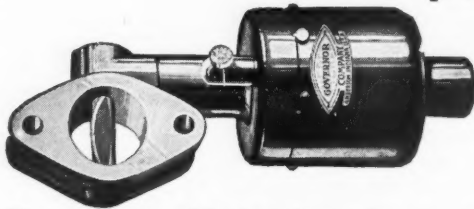


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THE COMMERCIAL CAR JOURNAL

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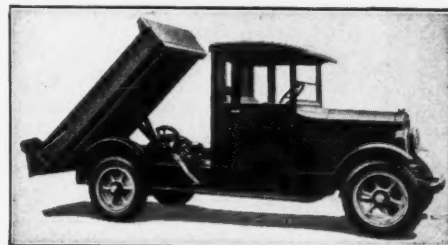
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If you sell any standard light truck—Graham Brothers, Ford, Chevrolet, G. M. C., International, Reo, etc., Hughes-Keenan Steel Dump Bodies will help boost your sales and your profits. They help sell many new trucks and in lots of cases they mean a second profit on a previous truck sale.

Write for information about these
bodies for the truck you sell.

THE HUGHES-KEENAN COMPANY
Drawer 398 Mansfield, Ohio

HUGHES-KEENAN

Steel Dump Bodies

How I got **HARD-BOILED** *about Duals*

EVEN when I was a kid I was always the first cash customer for every medicine show that came to town. In other words, I was easy to convince.

But since I dropped the three hundred bucks I've grown more set in my ways. That little cold plunge 'woke me up to the fact that you can't be too broad-minded—and run a fleet of trucks at the same time—unless you're a good loser.

I'd been using Budd Duals for years with never a single tear of grief. So I'd never thought much about wheels, never had occasion to.

Then I bought a brand spanking new truck, and through force of habit, just took the wheels for granted. They were rather snooty-looking wheels, too.

But it wasn't long before that brand spanking new truck developed a ravenous appetite for tires. The wheels began to do a snake-dance and I couldn't break 'em of the habit. And believe me, folks, when you're paying the freight and tires are \$75



a throw, you can't laugh when they scuff out that way.

The boys kicked, too—said that changing one of those tires on the road was the toughest job they ever ran up against. And I was keeping books in two colors—red and redder.

No sir, you can't let yourself be smiled into buying *any* Dual wheel that comes along. You can't be carried away by charts and specifications and ballyhoo and paper talk. You've got to *know* your Duals.

I didn't used to be so hard-boiled, but I am *now*, believe me, and I paid three hundred bucks to get that way—

That's what it cost me for a set of Budd Duals to take the place of those rollers I fell for.

J. M. Wiser



The New 6-Cylinder
Autocar
TRAIL BLAZER

*More than Ample
Power!*

*Short-wheelbase
Handiness!*

The Latest and Best in ROAD BUILDING EQUIPMENT!

The new Autocar Trail Blazer now takes its place beside the famous 4-cylinder Model HPDS Autocar. Another step in the development of Autocar road building equipment!

The value of *short wheel-base handiness* has been recognized since modern road building began. Road builders began to use Autocar Trucks when they had nothing but 2-cylinder engines in them!

Today, road construction and mainten-

Making the
Autocar Franchise
Even More
VALUABLE!

ance represents an annual expenditure of millions of dollars. And more money is invested in trucks than any other road building equipment.

Autocar Dealers are getting a large share of this business. The new 6-cylinder Autocar Trail Blazer will bring an even larger share their way.

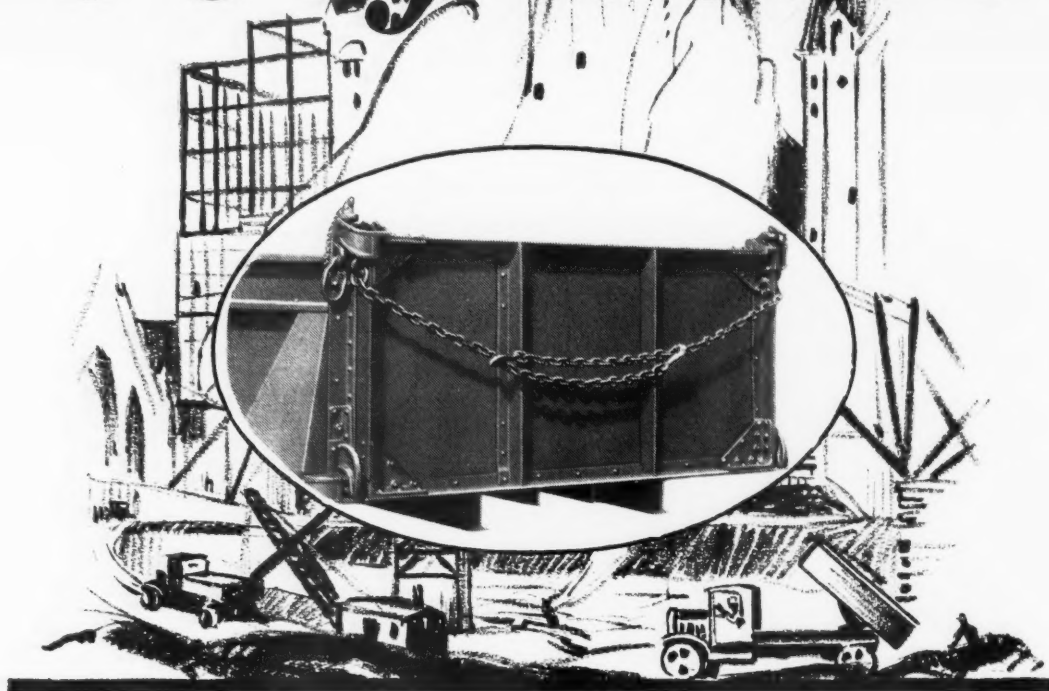
It will more than pay you to write for the Autocar Dealer Plan. From start to finish, it is written from your point of view.

Write for the Autocar Dealer Plan

Autocar Trucks

The Autocar Company, Ardmore, Pa., Established 1897

Serving Industry *Everywhere*



The Wood W-12 Heavy-Duty Body

Good bodies are as essential as good hoists. That's the reason we have devoted 17 years of constant engineering and production effort in developing Wood All-Steel Dump Bodies to their present standard of excellence.

Take, for example, the Wood W-12 heavy duty body. Hot riveted joints are used throughout with supplemental electric welding at vital points. All structural members are carefully straightened and sheared clean and square.

Tail Gate hooks of forged steel are housed within heavy corner brackets to prevent injury or displacement.

Tail Gate corners are fitted with rugged triangular reinforcing brackets. Tail Gate is further reinforced with vertical angle bar stiffeners. These, together with the heavy angle bar frame, all securely riveted together, form a massive compact body.

Tail Gate operating lever, of forged steel, and mechanism, are installed beneath the body to prevent injury to same.

Upper Tail Gate hinge pins are supported at outer ends to assure maximum strength.

Service on Wood bodies is so infrequently required that it is negligible, but always available through our world-wide factories, branches, distributors and dealers.

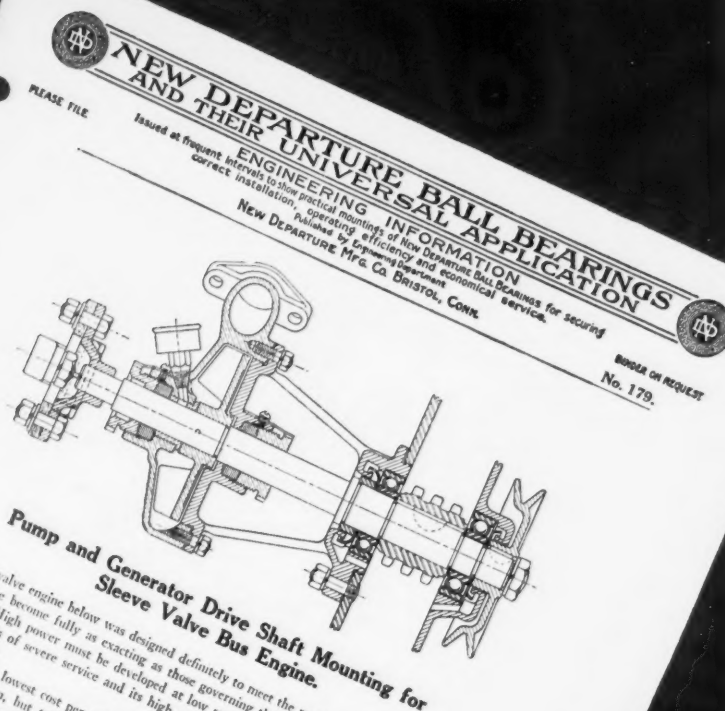
Wood Hydraulic Hoist & Body Company
DETROIT . . . U.S.A.

You Buy More Than Bearings

When You Specify New Departures

YOU also get an engineering service based on a knowledge and experience of bearing design and application absolutely unexcelled.

One phase of this service is New Departure application data—loose leaf bulletins which form a living, growing reference encyclopedia, always up to date through supplements and revisions issued monthly. Furnished without obligation to those in a position to use it to best advantage.

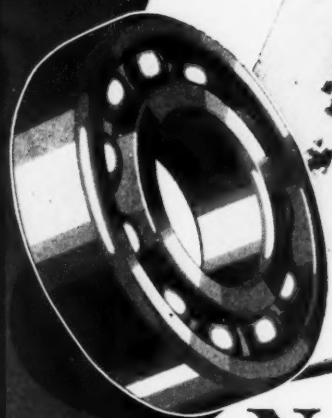


The sleeve valve engine below was designed definitely to meet the requirements peculiar to motorbus service which have become fully as exacting as those governing the design of the most advanced passenger car engines. High power must be developed at low speeds; power and efficiency must be sustained through long periods of severe service and its high order of performance must be delivered at the lowest cost per mile possible.

These two things, lowest cost per mile and highest efficiency, mean not merely high fuel economy and low oil consumption, but take particular account of the item of maintenance. It was principally to reduce maintenance costs that New Departure ball bearings were used for the pump and generator drive shaft illustrated.

These bearings are mounted upon either side of the driving sprocket, receiving ample lubrication from the oil thrown from the silent chain. Leakage of oil upon the fan pulley or pump shaft is prevented by the use of slingers in combination with an effective seal which drains any forward bearing in the pump and generator.

Because of this mounting arrangement, the small plain bearing at the rear carries only the almost negligible load due to possible slight shaft whip. Also, because of the accurate support afforded by the ball bearings, the packing glands in the shaft require less attention than would be the case, and finally the ball bearings add serious efficiency.



New Departure Quality Ball Bearings

The New Departure
Mfg. Company
Bristol, Connecticut
San Francisco
Detroit
Chicago



Eleven Internationals
in the Fleet

Testimony from the Tall Timber

... about INTERNATIONAL TRUCKS

McCORMICK-DEERING Industrial Tractors

These sturdy, compact power units are finding favor wherever the job calls for heavy-duty, low-cost power. They can be used with trailers, semi-trailers, and a wide range of special equipment. Power is available three ways, through drawbar, belt pulley, and power take-off.



The liberal power of this fine tractor can be applied in many ways. Our *New Industrial Tractor Catalog* shows a score of methods in daily use. Write for it.

WE couldn't write a better, more forceful endorsement of International Trucks than the owners of this fleet have written us, unsolicited, out of their experience.

Little and Paul Company, loggers, of Boise, Idaho, are doing the heaviest kind of heavy hauling, over the hardest kind of going, and their Internationals are rendering heroic service. Their letter says:

"We bought our first 5-ton International Truck three years ago; it has been in service continually since that time. We now own five heavy-duty Internationals. Our fleet consists of twenty-eight trucks of the very best makes. We are replacing our other makes with Internationals as fast as we can, as we know beyond a doubt that the Internationals can be *operated more economically, give better service and make us more money than any other heavy-duty truck we ever used.*

Since writing this letter they have added 6 more 5-ton Internationals.

The Little and Paul letter is typical of many that come to us, written in the plain language of men who work and live with International Trucks. It is much easier not to write, but, somehow, thousands of men are prompted to tell us how good the trucks are. Such opinion may well guide any man's investment in International Trucks.

The complete line—ranging from $\frac{3}{4}$ -ton to 5-ton capacities—is sold and serviced through 142 Company-owned branches in the United States. Specific information on International Trucks and McCormick-Deering Industrial Tractors furnished on request.

INTERNATIONAL HARVESTER COMPANY
of America
606 S. Michigan Ave. (Incorporated) Chicago, Ill.

The Commercial Car Journal

VOLUME XXXV

PHILADELPHIA, MARCH 20, 1928

NUMBER 1

Sales Trend Upward

Survey Shows That Truck Sales for Makes Other Than Ford Are Running Ahead of Last Year

SALES of trucks other than Ford so far this year appear to be running ahead of the corresponding period last year for the country as a whole, according to a nation-wide survey recently completed by COMMERCIAL CAR JOURNAL. The situation is somewhat spotty, but the indications are that the areas where sales have not come up to 1927 are more than overbalanced by the territories in which gains have been registered.

These indications of the survey tend to bear out the optimism regarding the business outlook current at the beginning of the year. The prospect continues to be for a year of good business although not of boom proportions. While it is true that some uncertainty regarding the outlook has developed in the last sixty days, in the main, this is attributable to expectations that were greater than were warranted by the facts.

Right now the trend of general business is upward and, although some seasonal contraction is to be expected in the summer months, most observers feel that for the year as a whole the general tendency will be toward higher levels of activity.

Only incomplete figures regarding this year's business are available, but using those that are, together with reports received from approximately 100 dealers and branches in all parts of the country, the indications are that the truck business is reaching its highest levels relatively in the Southeast and Southwest. Sales of makes other than Ford have been relatively good in the Central States as well as in some parts of the Middle Atlantic group.

Of course, in comparing sales this year with those of 1927, some allowance must be made for the fact that Ford production is still very small. A direct comparison between the two years would not be fair and, on the other hand, eliminating Ford sales in both years would

not give accurate results, as undoubtedly other makers have benefited by his absence from the field.

In the New England zone, sales are seasonally slow although a number of dealers and branches in Boston report substantial increases over last year. Small and medium capacity trucks are moving best here as in most other parts of the country. January sales in Connecticut showed a 26 per cent loss from last year for all makes and, with Ford excluded, a 12 per cent decrease.

The situation is spotty in the Middle Atlantic zone. A number of dealers and branches in New York City handling light and medium duty trucks report important gains, while those representing medium and heavy duty products place sales on a par or slightly ahead of last year. In New Jersey, on the other hand, January new truck registrations showed a 32 per cent loss for makes

other than Ford. In Pennsylvania, with Ford sales excluded, business was about on a par with January a year ago.

In the South Atlantic States, sales probably are reaching relatively higher levels than in any other section of the country. January business in North Carolina was 4 per cent ahead of last year and, with Ford excluded, a gain of 130 per cent is shown. Maryland for the first two months of the year, shows a gain of 15 per cent for makes other than Ford while reports from Atlanta are to the effect that business in that section is showing a substantial improvement over last year.

Sales of trucks other than Ford in the East North Central zone apparently closely parallel last year's records. Illinois, excluding Ford, was 4 per cent behind in January although in Chicago the trade generally reports better business for the first two months than last year. Wayne County, Michigan, which includes

THE results of a nation-wide sales survey presented briefly in the accompanying article, tend to bear out the optimism regarding the business outlook current at the beginning of the year. While it is true that some of the first-of-the-year optimism has been replaced by a degree of uncertainty in the last sixty days, this is attributable largely to expectations that were greater than were warranted by the facts. The prospect continues to be for a year of good business although perhaps not of boom proportions.

Detroit, is 9 per cent behind last year for the first two months of 1928, although elsewhere in this state the indications are that business is running approximately even with 1927. Certain lines in Cincinnati have enjoyed rather large increases this year due, in some cases, to the absence of Ford from the field, while other makes report business about equal to last year.

West North Sales Satisfactory

Sales are reaching quite satisfactory levels in the West North Central zone although the totals are naturally under last year. Excluding Ford, Iowa had a five per cent gain in January over the same month last year while on the same basis Missouri increased 30 per cent. Representatives of half a dozen different lines in Minneapolis report gains in the first two months of from 10 to 25 per cent over last year. Somewhat similar conditions are reported in St. Louis.

If Texas may be taken as a criterion, business is developing very favorably in the West South Central zone as in that state January sales ran 23 per cent ahead of last year and, excluding Ford, 115 per cent ahead. Reports obtained on six different lines in Dallas indicate gains during the first two months of from 5 to 15 per cent.

Note: The states included in the zones referred to in the accompanying article follow: New England, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut; Middle Atlantic, New York, New Jersey, Pennsylvania; South Atlantic, Maryland, Delaware, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida; East North Central, Ohio, Indiana, Illinois, Wisconsin, Michigan; East South Central, Kentucky, Tennessee, Mississippi, Alabama; West North Central, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota, South Dakota; West South Central, Texas, Arkansas, Oklahoma, Louisiana; Mountain, Colorado, New Mexico, Arizona, Utah, Nevada, Montana, Wyoming, Idaho; Pacific, California, Oregon, Washington.

Denver, the largest city in the Mountain zone, reports substantial gains over last year, but there are some indications that the showing is less favorable in the surrounding territory.

In the Pacific zone, sales apparently are quite a bit behind last year although there is considerable feeling that this is a temporary condition. In southern California, medium and heavy duty lines show rather large decreases, while light and medium duty products are about on a par with last year. In some cases, however, rather large gains have been obtained due in part to the Ford situation. In northern California, makes other than Ford apparently have registered some gains.

Used Truck Conditions Improve

With Ford sales excluded, the State of Washington shows a 4 per cent loss in January although reports from the trade in Seattle for the first two months of the year indicate gains in that territory of as high as 40 and 50 per cent in individual cases over last year.

Reports from all parts of the country point to better used truck conditions than prevailed a year ago. In many cases, sales are at higher levels than a year ago and, generally speaking, inventories have been reduced. In comparing reports from different cities, it is evident a tightening up on used truck allowances is taking place. The effects of this tightening up have not been very widely felt as yet, however, as the trade generally is of the opinion that little has been accomplished to put used truck allowances on a more conservative basis.

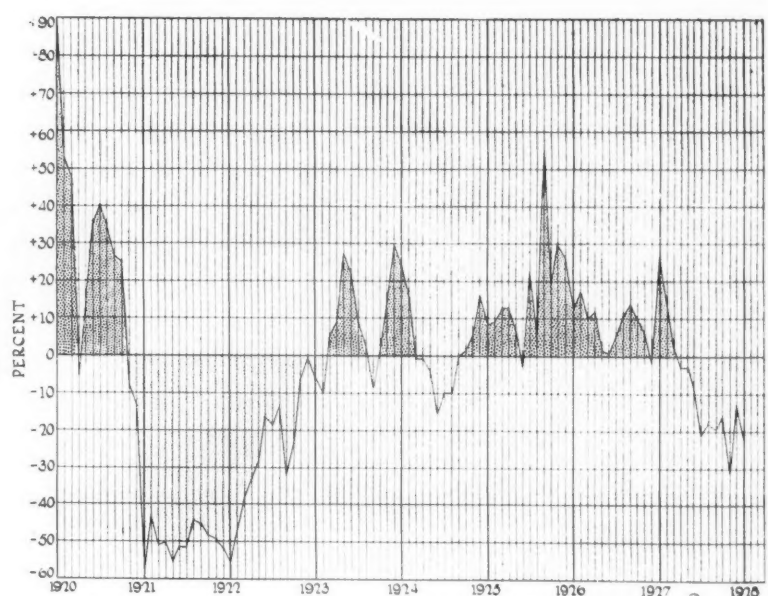
In comparing reports received from different parts of the country it is evident that certain makers are putting into effect rather hard-boiled used truck policies. The reports indicate that these makers are passing up sales involving trade-in allowances that would make the complete transaction unprofitable.

Increased Activity Forecast for Truck Industry

THE accompanying chart shows the percentage deviation from normal of monthly production for the last nine years. The normal line takes into account seasonal variations and the growth of the industry. Where the curve goes above the normal, a super-normal output is indicated and where it goes below, a sub-normal production. Over a period of years the areas above the normal should equal approximately the areas below.

While output during the years 1923 through 1926 was in the main above normal, this production rate was justified to a large extent by the sub-normal output in 1921 and 1922. For the last year, production has been sub-normal due in part to cessation of Ford operations. This prolonged period of sub-normal activity undoubtedly has done much to take up any slack created by large output in 1925 and 1926.

Statistically therefore the truck industry is in a strong position and the indications are that the trend of the curve will be upward, although just when the normal line is reached depends to a considerable extent on the rate of acceleration of Ford truck production.



Curve showing the percentage deviation of monthly production from normal for the last nine years

The Editor's Notebook

Motors vs. Rails

IF the railroads were being operated as inefficiently today as they were during the war and in the years immediately following the war, motor truck registrations would be much larger than they are—possibly four, instead of three million. Unfortunately, perhaps, for the motor truck industry but fortunately for the country as a whole, they are not. In fact each year sees the rail carriers reaching new levels of efficiency.

Average freight train speed has increased from 10.8 m.p.h. in 1913 to 12.3 m.p.h. in 1927. Net tons per freight train has risen from 716 tons in the former year to 778 tons last year. Fuel consumption per ton-mile of traffic has decreased 20 per cent. These and other facts indicate that the rail lines are giving faster service at lower cost.

Competitive Interest of Truck Trade

THE progress being made by the rail carriers is of very definite competitive interest to the truck trade. The limits of the economic sphere of usefulness of the motor truck are shadowy. Where the two types of transportation are in competition, if the rail lines speed up or reduce the cost of their service, the effect is to contract the economic limits of truck usefulness. On the other hand, increased efficiency on the part of trucking interests tends to expand the sphere of the motor vehicle.

Of course, for the most part, truck and rail transportation are non-competitive but where the two facilities do compete, who gets the business is determined by their relative efficiencies. In a particular case, for example, the rail lines may begin to assume a competitive advantage over the truck for hauls over 40 miles. More efficient truck operation may advance the limits to 50 miles and conversely greater efficiency on the part of the rail carrier might conceivably limit the truck to 30-mile hauls.

This discussion simply re-emphasizes the point that it is good business for the truck

trade to concern itself with the efficiency with which the trucks it sells, are operated. Increased efficiency means more sales.

"Public Convenience and Necessity"

THE term "public convenience and necessity" has become so deeply rooted in regulation practice that it is extremely doubtful that any other phrase could ever be substituted for it. Nevertheless it is unfortunate that it has come into such general use as a criterion for commissions to apply in determining whether a proposed service by a utility is warranted.

Ordinarily it is not difficult to determine whether the proposed service is warranted from the standpoint of public convenience, but demonstrating a necessity for it is something else again. A necessary service is one that is indispensable. The fact that the public has heretofore been able to get along without the proposed service, can be taken as an indication that the service is not a necessity if a commission wants to place a literal interpretation on the word.

Commissions Usually Reasonable

OF course, commissions usually have been reasonable in their interpretation of the word "necessity" but this does not alter the fact that a literal interpretation is possible. It follows that the right to provide a service which would serve the public convenience, might be withheld because of the impossibility of showing the literal necessity for it.

All this may sound rather hypothetical but it is a point of considerable importance in connection with common carrier bus and truck lines. Where, for example, a motor carrier proposes to operate over a route, all or part of which is served by rail lines, he may make a very strong showing of how convenient his service would be to the public but at the same time find himself up against a stone wall because the commission chooses to interpret necessity literally.—D. B.

Solving Haulage Problems

*Helps California Factory
Worth of New*

By H. H.



T. L. Baumgartner, manager of the Fageol Motors branch in Oakland, Cal.

BECAUSE he devotes his time to helping the prospective customer solve his transportation problem and then supplying a truck that will best meet requirements, the manager of a retail branch of a Pacific Coast truck manufacturer has built himself an enviable sales record. So closely has he followed this method of truck merchandising that he knows the name of practically every truck owner in his district, the make, age and condition of the trucks, and the approximate date at which the owner will be in the market for a new truck or fleet of trucks.

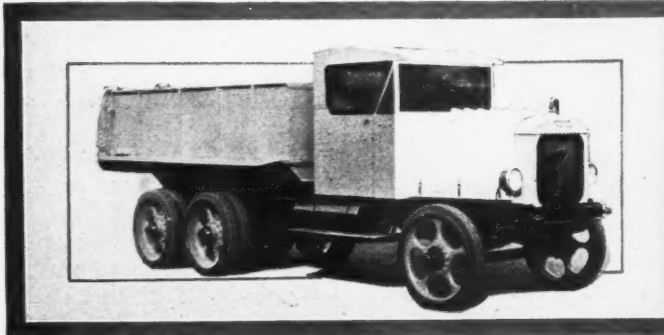
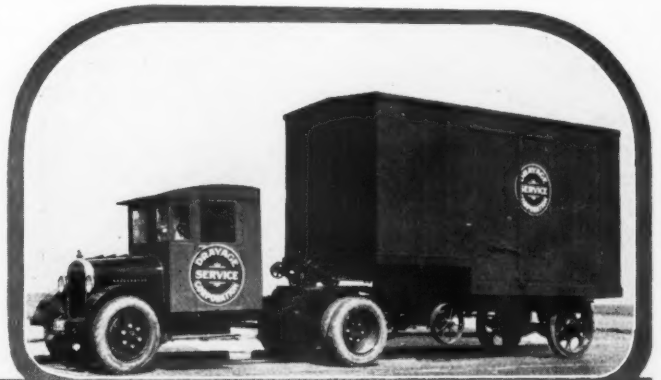
This man is T. L. Baumgartner, Oakland branch manager for the Fageol Motors Co., with which organization he has been connected for eleven years. His branch is not in the down-town district of Oakland, it is not even on or near "Automobile Row"; as a matter of fact, it is in East Oakland, on one of the main lines of traffic

into and out of that city of 300,000 people. This location was chosen after an extensive survey to determine the most central point to the greatest number of truck owners and operators. As this has developed into one of the most heavily traveled truck highways in California, the selection was a most fortunate one.

But location and comparative distance seem to mean little to Mr. Baumgartner. He has a system of selling trucks to men who need trucks; selling the type of truck needed to the man who needs it; wasting no time on useless "prospects," and keeping the buyer satisfied that he has the best truck in the world after he has bought it. By this system, with the aid of two salesmen, he sold 85 trucks in 1927, totaling in value more than \$350,000. These trucks vary in size, a 1½-ton speed truck selling for \$2,000, through eighteen various models to a 1-ton, 6-wheel, 4-wheel drive chassis at \$8,500.

But he can tell the story better than I can, for he has lived it:

"Permanance is one of the greatest factors in the advancement of the truck dealer or salesman. Getting the right men and keeping them, might be written down as one of the two keys to success in truck merchandis-



Left: Ten-ton, four-wheel drive dump truck for contractors, graders and similar industrial enterprises. Upper right: Tractor and 10-ton closed trailer designed for Drayage Service Corp., Oakland, Cal. Lower right: 17-ton, six-wheel, garbage-collection truck, built to meet requirements of a hog-raising firm

for Prospective Buyers

Branch Sell \$350,000 Trucks in 1927

Dunn

ing. The other is fitting the truck to the job. Truck salesmen should be trained to sell the type of truck a man needs, not merely to sell a truck, get the customer's name on the dotted line and consider the job well done."

How this policy of selling trucks to fit the buyer's needs is translated into actual practice is shown by the accompanying illustrations of equipment sold by this branch.

The method employed by Mr. Baumgartner to get truck prospects is, perhaps, somewhat different from that ordinarily used. In his office is a large map of Oakland showing the exact location of each industry in that city. He also has similar maps of the other cities on the mainland side of San Francisco Bay. Whenever a new industry comes to these cities he received notice of this from the Chamber of Commerce. This information is then entered on the map to keep it up-to-date and forms one of the most complete industrial indexes in Oakland. If the new industry needs trucks, a man is sent to study its needs, not to sell trucks immediately, but to learn exactly what type and size of truck, and what kind of body will best serve that industry. When this information has been gathered and tabulated, the prospective customer is approached with a definite plan

DO you follow up the man who buys a used truck of the make you sell from a competitive dealer? The factory branch, whose sales methods are outlined herewith, does and finds it very much worth-while not only because it often makes possible immediate service sales but also for the reason that it frequently opens the way to a truck sale at a later date. You'll find this article well worth your careful reading.

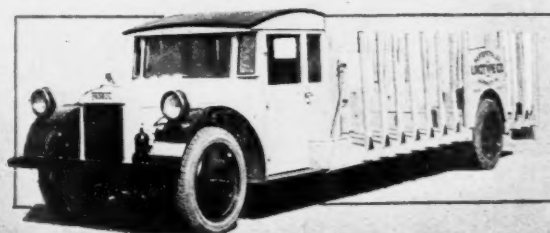
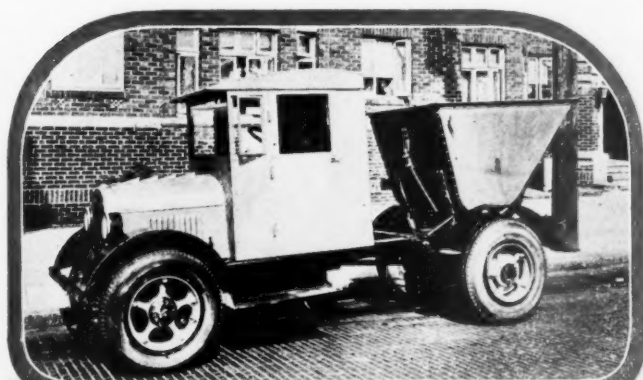
of truck usage as well as a description of the kind of truck which will do his work best.

A card index is kept of every truck owner, individual or firm in the territory, who owns a truck of any kind. Full information on the truck, such as the make, size, year, model and whether equipped with solid or pneumatic tires, as well as the probable date at which the operator will need a new truck. When that date approaches, the owner is either called on the telephone or visited by Mr. Baumgartner or one of his salesmen.

Close touch is kept with every Fageol owner in the territory, whether he has purchased the truck from the local branch, has moved into the territory from some other district or has purchased a used truck from a competitor. This information is also kept on a card index, and every owner listed is called on at least once a month. This provides the branch with a means of keeping in touch with the mechanical condition of the trucks, thereby not only obtaining work for the repair shop, which in some instances would otherwise be done elsewhere, but maintains a contact with owners who, in many instances, furnish tips on prospective purchasers of truck equipment.

When a used Fageol moves in from an outside territory and is purchased second-hand from some other dealer, the branch immediately gets in touch with the man and invites him to bring his truck to the shop where it will be inspected by the shop foreman, free of charge, and if any work is necessary the owner will be informed of it and the approximate cost estimated.

This service to a used-truck owner who has purchased
(Turn to page 30, please)



Upper left: Concrete-mixer job built on a Fageol tractor for a Seattle contractor. Lower left: A novel demonstration conceived by the branch. Two seven-speed Fageols without drivers towed by a third truck of the same model. Right: Special low-bed body fitted to a Fageol stage chassis for express service

Detroit Distributor Keeps His Customers' Trucks Rolling

By
[D. G. Baird]

*By Unit Exchange Plan
and Other Service Fea-
tures Which Mini-
mize Time Lost in
the Shop*



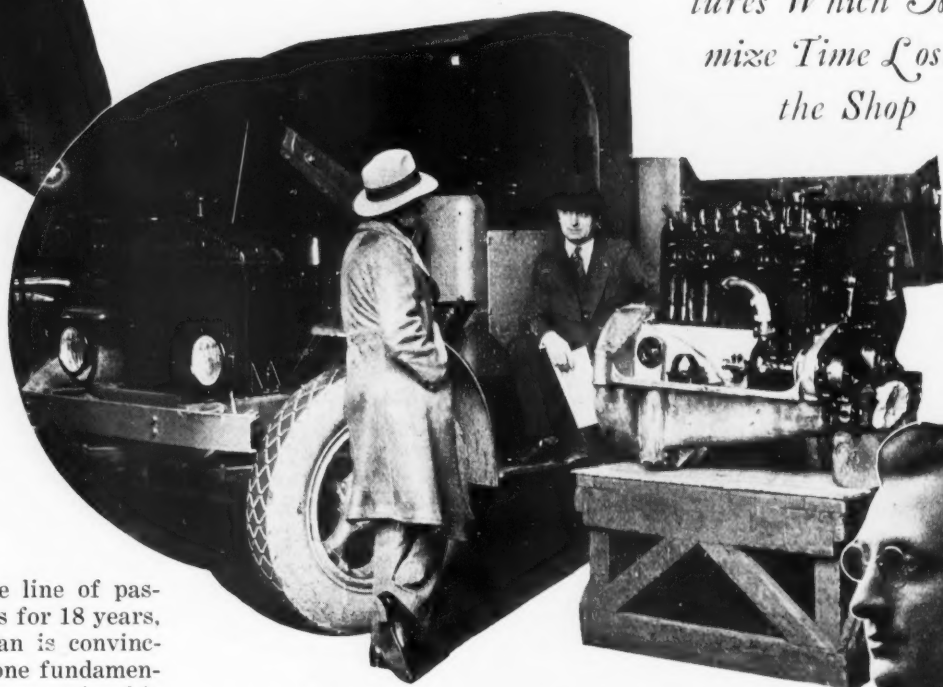
Wm. F. V. Neuman, Detroit
Pierce-Arrow distributor for 18
years

AFTER selling automotive vehicles continuously in one city for 28 years and being a distributor for the same line of passenger cars and trucks for 18 years, William F. V. Neuman is convinced that there is but one fundamental principle of success in his chosen vocation and that is to place the owner's interests first all the time.

"Service is the most important factor of the truck business, outside the product itself. It is more important in the truck business than in the passenger car field. The owner of a truck values its use at so many dollars a day and every day it stands idle in a service station means just so many dollars lost. For this reason, we have worked out some service features which we think are unusual.

"It takes time, for example, to grind a crankshaft and fit the rod bearings, so we have several crankshafts with the rod bearings already fitted on hand which we exchange for the owner's shaft that requires service. Similarly with radiators, carburetors, ignition systems, steering columns, rear axles, wheels, clutch, transmissions and engines. We may even go out and make the exchange right on the job, if necessary, without bringing the truck into the service station at all. This is a very valuable service to our owners and at the same time it enables us to rebuild the used parts at our leisure and thus keep down our service costs."

This service plan was first introduced about five years ago, Mr. Neuman said, when it was tried out with the most important parts, such as crankshaft,



K. V. Schwarz, sales manager, explaining to an owner the advantages of exchanging his engine for a rebuilt one under the company's unit exchange plan



K. V. Schwarz, sales manager, W. F. V. Neuman & Sons, Pierce-Arrow distributor, Detroit

clutch, transmission and ignition system. This proved so satisfactory to everyone concerned that other major parts were added to the exchange list until it now includes the above list, on which is a complete engine. The plan is to take a used part of the kind, rebuild it completely, then exchange it for an owner's used part of the same kind that is in need of repair, rebuild it and exchange with another owner, and so on. The cost to the owner is the appraised cost of rebuilding the used part of his truck. Rebuilt parts, with the exception of the engine, carry the usual guarantee covering materials and labor; the engine carries the same guarantee as a new one.

This not only is an immense saving to the owner in the use of his truck, but it often is an even greater saving in the cost of repairs. A new engine, for example, costs about \$2,100; a rebuilt one, guaranteed

(Turn to page 30, please)

Daily time summary used in calculating compensation on the group bonus plan

each man and of the group. In this case, the group "bogey" is 680.8 hrs. This total is divided into \$71.79 to get the bonus rate which figures out to \$.1055. The "bogey" time of each man is multiplied by this rate to get the

bonus. In the case of the first man on the accompanying report, Uhl, 133.8 is multiplied by .1055 giving \$14.11.

This service station pays a further bonus to mechanics showing a time gained in excess of 20 per cent of their "bogey." This is done to give the individual a special incentive to produce in addition to the group bonus. This extra bonus amounts to 10 cents for each hour gained. Referring to Uhl, again, he gained 55.4 hours and consequently receives an extra bonus of \$5.54, making his total bonus for the week \$19.65. Group and extra bonuses earned by other men in the group are figured in the same manner and for this particular week totaled \$94.75.

The foreman's bonus is determined by dividing the bonus of the group by the number of men in it, nine in this instance. On this basis the foreman earns \$10.54 extra, which brings the total for the group up to \$105.28.

On operations involving two or more men, both the "bogey" and actual times are inserted opposite the word "group" and the time gained computed. This time gained is added into the total in figuring the group bonus but the bonus is distributed on the basis of the "bogey" times credited directly to the men. In other words, if there was group "bogey" time shown on the report reproduced herewith, it would have been subtracted from the 680.8 hrs. total shown and the difference divided into the group bonus of \$71.79 to get the rate.

Work which comes back and must be done over at no charge to the customer, is deducted from the gained time of the man responsible, where responsibility can be placed directly. Where it is impossible to saddle the responsibility on an individual, the time consumed in doing the work over is deducted from the group gained time.

More work per mechanic means higher pay for him and lowered costs for the service station. Both of these results are important at this time when the problem of getting good mechanics is so acute and when the trade is putting forth every effort to place maintenance on a profitable basis.

In the accompanying article, the group bonus plan of paying mechanics now being used by a number of large service stations and which has for its objectives increased output, proportionately higher wages and reduced costs, is explained. In the April number, the advantages and disadvantages of this incentive plan with particular reference to the piece-work system, will be discussed.

Credit is given in calculating the bonus only on completed jobs. In other words, work commenced in one pay period but not completed until the next is included in the period in which it is completed. This accounts for the high actual

time, 82.3 hrs. in one case, shown for individuals on the accompanying sample group bonus report.

In the shop whose plan is described herein, the average bonus per mechanic over a ten-week period was \$5.02 per week. The high man in the group during this period earned an average weekly bonus of \$10.49, while the highest individual bonus earned in any week during the period was \$24.69.

To keep the men informed, a daily cumulative time summary is posted in the shop similar to the sample "Time Summary" shown. This gives an analysis of the "bogey" and actual time on each repair order completed by each man and the group. Totals for "bogey," actual and gained time are given for each man and for the group in the columns at the right. The two columns under the "Week to Date" heading at the left give the cumulative "bogey" and actual times for the week up to and including the day summarized on the report.

As was pointed out previously, idle time is shown separately on the Group Bonus Report. This column indicates the difference between the actual working time and the time the mechanic is paid for on the hourly basis. It brings this item of expense, which frequently amounts to considerable, forcefully to the attention of the management and puts it under pressure to get more work into the shop to reduce this item. Moreover, by handling idle time in this manner, it is likely to be reported more accurately. Under the ordinary, straight hourly compensation plan, mechanics have a tendency to string jobs out when work is slack to avoid showing idle time. With the group bonus plan under discussion, this temptation is largely removed as stretching a job out reduces the gained time and

Group Bonus Report											
Group A				Week Ending 12-10-27							
Rate .1055											
Roll No.	Name	Idle Time	Total Bogey	Total Actual	Total Gain	Bonus	Extra Bonus	Total Bonus			
4	Uhl		133.8	78.4	55.4	14	11	5	54	19	65
16	Pokorny		55.6	37.8	17.8	5	86	1	78	7	64
50	Matejka		129.6	82.3	47.3	13	67	4	73	18	40
76	Gorman		90.4	60.6	29.8	9	53	2	98	12	51
47	Hawlinghauser		66.5	46.4	20.1	7	22	2	01	9	23
6	Bosch	.5	66.7	39.8	27.1	7	03	2	71	9	74
19	Braun		76.9	47.5	29.4	8	11	2	94	11	65
21	Schaefer		50.7	41.	9.7	5	35			5	35
48	Schadlich	5.1	8.6	5.9	2.7		91		27	1	18
	Group										
46	Streithorst										
	Foreman : 9									10	53
	Totals	5.6	680.8	441.5	239.3	71	79	22	96	105	28

The Bonus is arrived at by multiplying the difference between Bogey and Actual time by .30 per hour.
It is then necessary to determine the factor of rate earned per Bogey hour by dividing Total Bogey less Group and any other dead Bogey into the money arrived at in first mentioned calculation. Individual bonus earnings are then compiled by a multiplication of the rate factor by the total bogey of each mechanic.
Extra bonus of .10 per hour is paid to those mechanics whose total gained time equals or exceeds 20% of their bogey hours plus idle time.
The foreman's bonus is calculated by dividing the Total bonus by the number of active men in the group.

Weekly bonus earnings of the group and of the individuals in it, are shown on this report

(Turn to page 30, please)

Commercial Car Journal

Flat Rate Price List Number 15

Front Axle and Steering*

GRAHAM BROS.

1½-2 ton models

4-wheel brakes

Front Axle

2. Remove and reinstall axle center, four-wheel brake type \$ 4.00
3. Straighten axle after axle has been removed. 3.80
5. Remove and reinstall or renew both right and left knuckle assemblies, four-wheel brake type.. 2.50
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed 1.00
7. Renew all front system bushings, pins and thrust washers, four-wheel brake type. (Do not include wheels and drag link.)... 4.75
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels. 1.60

Steering

11. Remove and reinstall steering gear assembly \$ 7.50
13. Adjust steering system to take out lost motion at all points... 1.80
14. Overhaul steering gear housing assembly without removing 6.00
16. Remove and reinstall steering wheel 2.50
17. Tighten steering gear housing to the frame 2.25
- When fender must be removed .. 5.25

GENERAL MOTORS

De Luxe Delivery

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$ 3.75
3. Straighten axle after axle has been removed 2.50
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type.. 3.60
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed90
8. Renew all front system bushings, pins and thrust washers, two wheel brake type. (Do not include wheels and drag link). 6.00
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 1.50

Steering

11. Remove and reinstall steering gear assembly \$ 2.50
14. Overhaul steering gear housing assembly 5.00
16. Remove and reinstall steering wheel 1.00
17. Tighten steering gear housing to the frame.

MACK

Model AB

Front axle operations were given in the January issue on page 27.

Steering

11. Remove and reinstall steering gear assembly \$ 6.00
12. Free up all parts of steering system. (Does not include removing steering gear or king pins.) 2.40
13. Adjust steering system to take out lost motion at all points... 3.00
14. Overhaul steering gear housing assembly 9.00

15. Renew column jacket bushing... 6.15
16. Remove and reinstall steering wheel 2.70
17. Tighten steering gear housing to the frame50

MACK

Model AC

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$12.90
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type 11.85
8. Renew all front system bushings, pins and thrust washers, two-wheel brake type. (Do not include wheels and drag link.)... 11.85
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 4.20

Steering

11. Remove and reinstall steering gear assembly \$ 5.85
12. Free up all parts of steering system. (Does not include removing steering gear or king pins.).... 2.40
13. Adjust steering system to take out lost motion at all points... 2.35
14. Overhaul steering gear housing assembly 10.25
15. Renew column jacket bushings... 8.70
16. Remove and reinstall steering wheel 2.75
17. Tighten steering gear housing to the frame75

PIERCE-ARROW

Model X

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$16.50
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type. 10.50
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed. 1.50
8. Renew all front system bushings, pins and thrust washers, two-wheel brake type. (Do not include wheels and drag link.)... 16.50
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 3.00

Steering

11. Remove and reinstall steering gear assembly \$ 9.00
13. Adjust steering system to take out lost motion at all points... 3.00
14. Overhaul steering gear housing assembly 16.50
15. Renew column jacket bushings.. 13.50
16. Remove and reinstall steering wheel75
17. Tighten steering gear housing to the frame50

Models W & R

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$17.25
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type 10.50
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed. 1.50
8. Renew all front system bushings, pins and thrust washers, two-wheel brake type. (Do not include wheels and drag link.)... 18.00
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 3.00

Steering

11. Remove and reinstall steering gear assembly \$ 9.75
13. Adjust steering system to take out lost motion at all points... 3.00
14. Overhaul steering gear housing assembly 18.00
15. Renew column jacket bushings.. 15.00
16. Remove and reinstall steering wheel75
17. Tighten steering gear housing to the frame50

REO

Model T-6

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$ 5.25
3. Straighten axle after axle has been removed 2.00
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type. 7.50
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed75
8. Renew all front system bushings, pins and thrust washers, two-wheel brake type. (Do not include wheels and drag link.) 6.75
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 2.50

Steering

11. Remove and reinstall steering gear assembly \$ 5.00
12. Free up all parts of steering system. (Does not include removing steering gear or king pins.) ... 3.50
13. Adjust steering system to take out lost motion at all points... 3.00
14. Overhaul steering gear housing assembly 7.90
15. Renew column jacket bushings.. 9.15
16. Remove and reinstall steering wheel 3.60
17. Tighten steering gear housing to the frame 1.25

Model FV

Front Axle

1. Remove and reinstall axle center, two-wheel brake type \$ 5.25
3. Straighten axle after axle has been removed 2.00
4. Remove and reinstall or renew both right and left knuckle assemblies, two-wheel brake type. 7.50
6. Renew king pin and knuckle and axle bushings on one side after knuckle has been removed75
8. Renew all front system bushings, pins and thrust washers, two-wheel brake type. (Do not include wheels and drag link.) 6.75
9. Renew tie-rod yoke ends or ball joints, include tramming front wheels 2.50

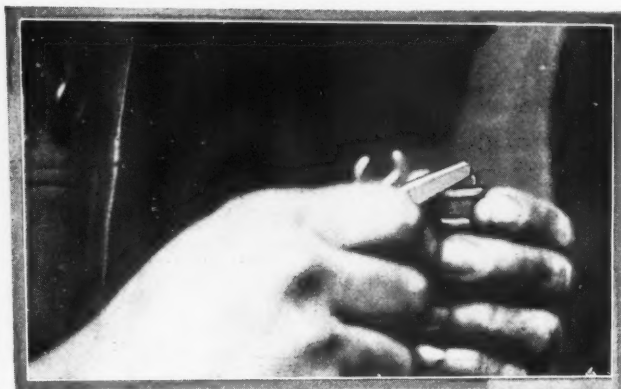
Steering

12. Free up all parts of steering system. (Does not include removing steering gear or king pins.) ... \$ 2.25
13. Adjust steering system to take out lost motion at all points... 3.00
14. Overhaul steering gear housing assembly 7.05
16. Remove and reinstall steering wheel 3.30

Note: Prices for additional models including Reo Speedwagon, Jr., will be given in the next issue.

*This list alphabetically arranged is continued from the February issue and will be concluded in the April issue.

They Bought Perform



Spark plug gap is set by gage

THE emphasis being placed upon engine performance by truck manufacturers, dealers, salesmen and, to a lesser degree, by owners presents a situation which calls for action by alert service managers.

The advantage of superior performance featured in practically all new models has been seized eagerly by sales departments and upon it most of their plans are laid. Prevalence of this viewpoint is revealed by expressions such as: "higher speed and generally improved performance * * * ; fast delivery model * * * ; capable of hauling big loads with speed and safety * * * ; and delivery equipment must keep pace with the natural flow of traffic * * * " which have been chosen at random from recent trade literature.

Keeping trucks up to the standard of performance featured in sales effort is naturally the function of the service department and in this field there is a new opportunity for service sales. Having been sold the idea of higher speed and better acceleration an owner is a good prospect for sale of maintenance operations which will maintain the performance characteristics of his trucks.

A combination carbon and valve and engine tuning operation may be used effectively to build up service sales to owners of modern speed trucks. This work brings about an improvement of engine performance which is quite noticeable to the driver and it therefore gives an impression of value received.

With up-to-date equipment the time required for this combination job is short and in almost all cases it can be arranged so as not to interfere with regular trips of the truck.

Many different operations may be included in an engine "tune-up" and some care must be exercised in their choice. From the standpoint of individual or-

*See That They Get It
by Selling Them
Engine Tune-Up
Operations*



Above: Special machines insure tight seating of valves. At left: A tune-up may include tightening of oil and fuel lines

ders it is desirable to make the job as comprehensive as possible but a point is soon reached where the cost of the combination cuts down the number of orders placed.

In many establishments the operations listed in the combination are kept at a minimum and service salesmen sell one or more additional minor operations as indicated by inspection of the customer's truck.

A popular combination, listed in COMMERCIAL CAR JOURNAL flat rate price list includes: clean carbon, grind valves, clean and adjust breaker points and spark plugs, clean vacuum tank and carburetor screens, adjust valve tappets, check ignition timing and adjust fan belt. A "tune-up" alone, consists of the above minus the carbon and valve job with the addition of a carburetor adjustment.

Although some of the items may seem unimportant

ance

By

James W. Cottrell

each of them, with the exception of adjusting the fan belt, influences engine performance. As something much better than "hitting on all four" is expected of engines nowadays it is important that each item affecting engine performance be checked.

The adjustment of breaker points and of spark plug gaps is important. On a full power run on a dynamometer it is very easy to measure the loss of power which results from incorrect spark plug gap setting or from pitted breaker points. In ordinary service work it is harder to detect the falling off in performance which follows deviation from standard settings but if each setting is checked it may be assumed that results will be up to the mark.

During the recent revival of stock-car racing pit crews carried engine tuning to an unusual degree. It was found that a change in type of spark plug might make a difference of several miles per hour. It is not to be expected that truck engines will be tuned to the extent used in racing, but the principle of making sure of each detail can be followed.

It is not at all uncommon to find two or three different types and as many makes of spark plugs in the same engine. An engine so fitted out will run and apparently fire evenly but it will not give full power.

Accurate adjustment of valve tappet clearance is another detail to which increased attention is being given. With a higher performance factor and increased power output, in many cases without increase of cylinder dimensions, valves are subjected to more severe operating conditions and the penalty of too little clearance is manifest quickly. On the other hand the noise of the clattering valve gear is no longer accepted in the truck field and excessive clearance changes the actual valve timing and reduces power. The correct clearance is given in instruction books and factory service bulletins and should be set up as a standard for all shop work.

Quick acceleration and sustained speed on hills requires a full and free flow of gasoline to the carburetor. A partial stoppage of vacuum tank or carburetor screens may cause no great inconvenience



Breaker point setting is important and should be checked during each engine tuning operation

until full power is demanded of the engine. Cleaning these screens as a precautionary measure in all "tune-up" jobs is advised by many service executives.

Checking ignition timing is likewise important. Engines running at high speed require considerable spark advance for best results and but little slack in the spark control mechanism is required to throw the timing out. It takes but a short time to make sure of this point and it is well worth while to include this item in the "tune-up" combination.

Whether included in the "tune-up" or not the functioning of the carburetor should be checked following such work. The days of the carburetors which "gave an incorrect mixture at all speeds" unless adjusted frequently are happily past. Keeping a carburetor at the adjustment for best all round performance is not difficult.

If a truck is to keep its place in modern traffic conditions it must be able to accelerate rapidly after traffic stops. It is very annoying to the driver of a truck to have the engine "load-up" during a stop with the result that sudden opening of the throttle causes a lot of smoke and fuss, but little result in the way of pick-up. Checking and, if necessary, adjusting the idling setting of a carburetor is therefore advisable during a "tune-up."

The advertised claims for performance of vehicles furnish a basis for setting a standard for use by the maintenance department. Acceleration in high gear from a low speed, perhaps five miles per hour, to a higher speed of twenty miles per hour in a given time provides a thorough test of the condition and performance of an engine.

Test of acceleration can well be made on a selected stretch of road with a stopwatch to accurately measure the time. The truck should

(Turn to page 30, please)

Flat Rate Prices for Engine Tune Job

Clean carbon, grind valves, tune engine. Includes refacing valves and seats if necessary, clean and adjust breaker points and spark plugs, clean vacuum tank and carburetor screens, adjust valve tappets and fan belt and check timing.

Armleder 50, 55, 60	\$11.50
Armleder 70	15.00
Brockway R, T, E, and S	15.00
Chevrolet	5.00
Douglas	9.00
Ford TT	5.25
Garford 1-1½-2½	13.50
Garford 4-5	15.00
Graham Bros. 4 cyl.	6.50
Graham Bros. 6 cyl.	12.00
Kleiber	10.50
Larrabee-Deyo X-21	12.00
Mack AB and AC	19.65
Old Reliable B, C, D, and K	21.25
Patriot	7.50
Pierce-Arrow W, R, and X	18.75
G. M. C. De Luxe Del.	6.75
G. M. C. T-20, T-40	13.20
Reo T-6	15.75
Reo F-V	(a) 18.00
Reo Speed Wagon Jr.	11.25
Studebaker ¾-ton	13.85

(a) Includes removing blocks.

2

C

C. C. J. Shop Ideas

THIS page is designed primarily to help service station repairmen in effecting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical

hints. The average buyer today is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will often result in a sale.

Readers have secured many valuable suggestions from the series of ideas published. We want more useful hints and will pay \$5 for each new idea accepted. Give exact dimensions of parts to be made to enable other readers to duplicate the device.

Steering Knuckle Facer

A FLAT reamer of special design is used in the shop of the Van Sciver Corp., Philadelphia, for facing bushings in steering knuckles and also for a similar operation on the axle ends. The same cutting element is used in each case.

When used for facing knuckle bushings the cutter is mounted on a shaft turned to fit the assembly, as shown in Fig. 1. The cutter is separate from the shaft and it is inserted

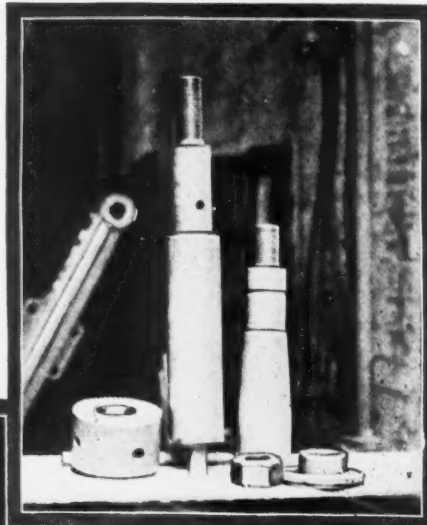
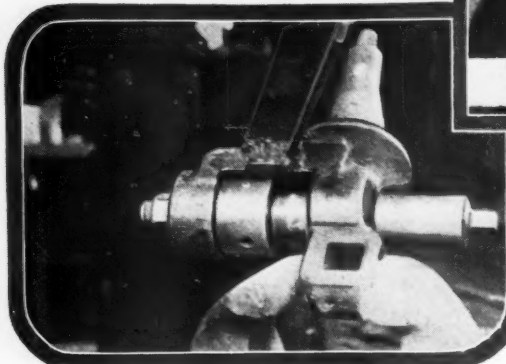


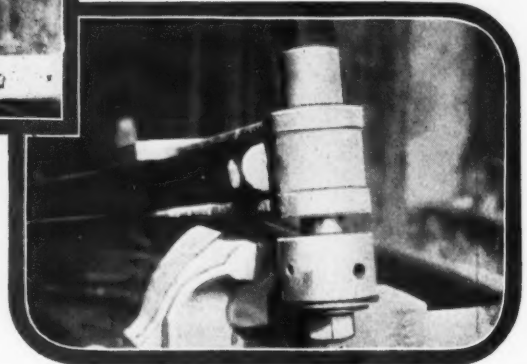
Fig. 1, left, shows assembly for reaming face of knuckle bushing. Fig. 2, right, the device mounted for facing thrust surfaces of axle end. Fig. 3, above, disassembled view of tool



bring in a disabled truck to the Philadelphia G.M.C. branch.

The channel iron is pivoted on each side on a flat bracket bolted to the frame side member as shown in Fig. 1. The chain is used to prevent the channel from dropping on the ground and it does not support any weight when the channel is in use.

In towing a truck the front end is raised by the chain hoist shown in Fig. 2, and a light chain is used to fasten the front bumper of the towed truck to the towing truck.



in the knuckle yoke and the shaft pushed through it. A nut and washer on the end of the shaft provide a feed for the cutter, if necessary. Shaft and cutter are revolved by a tap handle on the end of the shaft.

A knuckle pin is used to support the cutter for facing the thrust surfaces of the axle ends, as indicated in Fig. 2. The cutter, shaft, knuckle pin and

washers are shown in Fig. 3. This device was made by Harry Evans, machinist of the Van Sciver shop.

Towing Attachment

A semi-circular piece of channel iron attached to the rear of the frame of a towing truck prevents damage to either vehicle and enables one man to

The semi-circular form of the channel causes the towed truck to follow the tow-car and there is no interference even on sharp turns. The channel permits of close coupling of the two vehicles. When not in use the channel is detached from the brackets and carried in the body of the tow-car. Photographs taken through the courtesy of M. B. Reeves of the G.M.C. branch.



Fig. 1. Towing channel supported by chains when not in use. Fig. 2. Showing how a disabled truck is hooked-up by means of this attachment

New Trucks of the Month

Atterbury

A NEW 2 to 2½-ton chassis designed for long-distance hauling, has been added to the Atterbury line of Sixes. This new unit, supplied in three wheelbases, 168, 186 and 154 in., is powered by a 3½ by 5 in. six-cylinder engine capable of providing a road speed of 45 m.p.h. The engine, suspended from three points, is of the bus type with pressure feed lubrication, thermostatic temperature control, oil filter, air cleaner, electric starter and magneto ignition.

The transmission, mounted in unit with the clutch and engine, provides four speeds. Drive is through a two-piece propeller shaft supported in the center with a self-aligning ball bearing. A Timken worm-drive axle carries an oversize, air-cooled emergency brake on the worm shaft. Dual rear springs with auxiliary springs provide for heavy or light loads. Service braking is provided by double shoes, acting internally on carbon steel drums mounted on the rear wheels. 32 by 6 in. pneumatic tires with duals at rear are standard throughout. A spare tire carrier is provided under the frame at the rear.

Diamond T

PRODUCTION on two new six-cylinder models of one and two tons capacity priced at \$1,095 and \$1,650 has been announced by the Diamond T Motor Car Co., Chicago. Higher speed, improved acceleration and appearance have been built in these models, which are intended to more completely round out the Diamond T line.

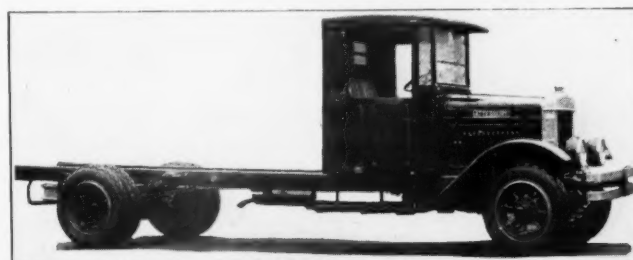
Both models are equipped with internal Lockheed hydraulic brakes and contracting brakes on the transmission.

The one-ton unit, designated as Model 150, is powered by a 3½ x 4 in. engine developing 61 hp. at 3000 r.p.m. The crankcase and block are cast integral and seven bearings carry the 2½ in. crankshaft. Pistons are of aluminum alloy. Pressure lubrication by gear pump is furnished to main and connecting rod bearings. Ignition, distributor type, is Auto-Lite

throughout. Carburetion is by Zenith, gravity fed from a 11-gal. tank located under the seat.

The cooling system consists of a centrifugal pump, 18 in. fan and cellular type radiator with nickel polished shell.

The clutch, which is multiple disk-type, and transmission are mounted in unit with the engine. The gearset provides three speeds. An all-metal universal equipped tubular driveshaft connects with a spiral bevel drive, semi-



Two and a half ton, six-cylinder Atterbury has a road speed of 45 m.p.h. It is furnished in three wheelbases, 154, 168 and 186 in.

floating rear axle having a final reduction of 5½ to 1. Drive is taken through the springs. Cam and lever type steering is used.

Four semi-elliptic springs carry the frame, which is of pressed steel, 5 in. section, 3 in. flange and 3/16 in. thickness. Channel cross-members are used for reinforcing. Front springs consist of seven leaves 2¼ x 40 in.; the rear, nine leaves, 2½ x 50 in. Wheels are metal spoke equipped with 30 x 5 pneumatic tires.

This job is furnished in one standard wheelbase, 127½ in., providing a distance of 51½ in. from back of seat to center of rear axle. Tread is 56½ in. front and 58 in. rear.

The power plant of Model 302, the two-ton unit, is essentially of the same construction used in Model 150 but of greater

capacity. This engine with its 3¼ in. bore and 4½ in. stroke develops 65 hp. at 2400 r.p.m. The crankshaft, also carried in seven bearings, is larger, 2½ in. A built-in filter also characterizes this model. Lubrication, ignition and carburetion are the same. The gasoline tank, however, has a capacity of 30 gal.

While circulation is the same, the radiator used in this model carries a copper fin and flat tube core. The outside case of the shell is built up of four readily detachable castings spring mounted on the frame.

A four-speed transmission mounted in unit with a multiple disk clutch and the engine, is used in this model. Two all-metal universals and a self-aligning bearing connect the two-piece propeller shaft to the rear axle, which is of the same type used in model 150 but providing a final reduction of 6.37 to 1. The axle housing in the heavier model is cast steel, pressed steel

being used in the lighter unit. Drive is taken through the springs.

Front springs are 2½ x 40 in., eight leaves; rear, 2½ x 53 in., 12 leaves. The frame, constructed of the same material, is heavier, being 6½ in. section, 3 in. flange and ¼ in. thick.

This model is furnished in two standard wheelbases, 155¼ and 165½ in. and a special of 174 in. at extra cost. Distances back of seat to center of rear axle on the standard wheelbases are 73½ and 83¼ in., respectively.

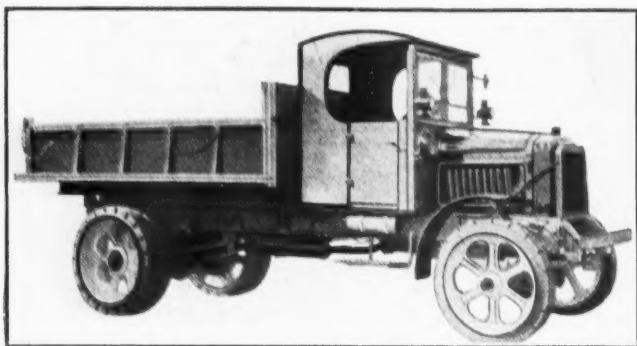
Hug

A NEW 127-in. wheelbase road builder has been added to the line of the Hug Company, Highland, Ill. This new unit, designated as Model 86, has a capacity of 8600 lb., is rated at 30 m.p.h. and equipped with a 3½-yd. dump body with 6-in. hydraulic underbody power hoist.

The powerplant is a six-cylinder, 3¼ x 5 in. Buda engine, Model DW, developing 70 hp. at 2100 r.p.m. A Purolator and air-cleaner are furnished as standard equipment. Ignition is by magneto with impulse coupling and carburetion is through a Zenith fed by vacuum from a 20-gal. tank equipped with a sediment bulb.



One of 165 straight side panel bodies mounted on Reo FA chassis being built by Fitz Gibbon & Crisp, Inc., Trenton, N. J. for the General Baking Co. for use in retail delivery.



The new Series "R" Schacht Six, is made in 5 and 7 1/2 ton ratings and furnished in six wheelbases ranging from 156 in. to 200 in.

The circulation system includes a centrifugal water pump and a tubular type radiator having a core 4 in. deep. The shell is of cast aluminum.

The power line consists of a multiple dry disk clutch, a five-speed forward and two-speed reverse transmission mounted in unit with the engine, an all-metal tubular propeller shaft and a full-floating double reduction rear axle.

Both brakes are internal and operate on separate drums. Steering is by Ross cam and lever gear. The rear suspension incorporates the Hug Multi-Cushion Relax Spring Drive with rear transverse and side springs 3 in. wide. The front springs are 2 1/2 in. wide. The frame to which a heavy channel bumper is integrally attached by double gusset plates riveted in place, is of 6-in. I-beam section and is guaranteed for the life of the truck. Wheels are metal, with 36 x 6 pneumatics, dual rear.

Republic

A COMPLETE new line of road-building and road maintenance trucks has been introduced by the Republic Motor Truck Co., Alma, Mich. There are three models, consisting of Model 88 of 1 1/3 yd. capacity; the Model 58 of 2-yd. capacity, and the Model S-25WB of 3 1/2-yd. capacity.

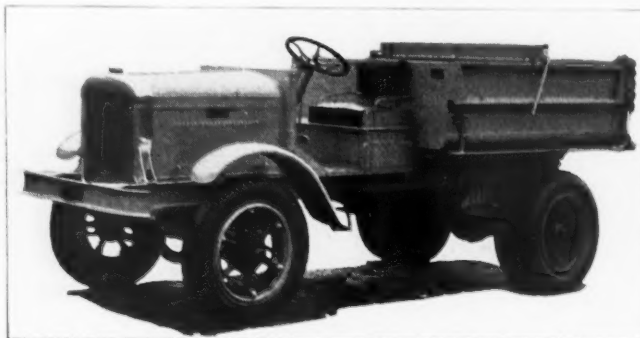
Model 88, 110-in. wheelbase, is offered with either a four or six-cylinder engine as standard at the same price. The rear spring construction of this model includes a heavy transverse platform type spring. Tires are 35 by 5 in. with duals in the rear.

The engine of Model S-25WB is equipped with an air cleaner and gasolator. Final drive is through a herringbone gear double reduction rear axle. Two-stage rear springs feature this model.

Model 58 is also offered with either a four or six-cylinder engine and is designed to carry a 2-yd. dump body and power hoist. The frame is heavy, well cross-braced and tapers over the rear axle. A bevel gear rear axle is used.

a governed speed of 35 m.p.h. and is furnished in six optional wheelbases, namely, 126 in. for tractor, 140, 152, 156, 180 and 193 in. The total weight of the model, completely equipped with cab, hoist, 3-yd. body and 34 x 7 in. pneumatic tires, dual rear, is 8400 lb.

The powerplant is a 3 3/4 x 4 1/2 in. six-cylinder Waukesha, which embodies



New 127-in. wheelbase Hug, Model 86, equipped with a 3 1/2-yd. dump body and six-inch hydraulic underbody hoist. Road speed 30 m.p.h.

a Ricardo head, seven bearing crankshaft, force feed lubrication to main, connecting rod, camshaft and piston pin bearings, gear water pump and Swan intake manifold. Battery ignition with a Leece-Neville distributor is standard as well as starting and lighting by equipment of the same make. The carburetor is a 1 1/4 in. Zenith model 105-DC supplied from a 20 gal. tank.

A multiple disk, 14-plate clutch and a four-speed transmission are mounted in unit with the engine. Final drive is through a full floating double reduction type rear axle. Rear axle ratios of 8 2/3 and 9.42 to 1 are available for commercial and dump service respectively. Drive is taken through ball jointed radius rods.

Both brakes are located on the rear wheels but operate in separate drums. The diameter and width of the service brake is 20 x 3 in. while the

Schacht

TWO new sizes have been added to the line of the LeBlond-Schacht Truck Co., Cincinnati, Ohio, a 2 1/2-ton model and a heavier model made in 5 and 7 1/2-ton ratings. Both are for fast heavy duty service.

The lighter model, designated as Model T, has

emergency is 15 5/16 x 2 1/2 in. Four semi-elliptic alloy steel springs carry a 7-in. pressed steel frame. The front springs are 40 x 2 1/2 in. with ten leaves; the rear, 50 x 3 in., 16 leaves. Steering is through Ross cam and lever type gear.

The Series "R" Schacht Six, furnished in six wheelbases ranging from 156 in. to 200 in., is powered by a 4 1/4 x 4 3/4 in., 86 hp. Waukesha governed to 1800 r.p.m. by a Handy velocity governor. Ignition is by American Bosch magneto with implus coupling and carburetion by Zenith fed by gravity from a 28 gal. tank located under the seat.

The cooling system includes a gear driven vane type pump, tubular radiator and a pressed steel fan.

Power is transmitted through a multiple-disk, 14-plate clutch to a seven speed forward and two reverse gear-set. A Spicer joint equipped propeller shaft connects with a full floating worm gear type rear axle.

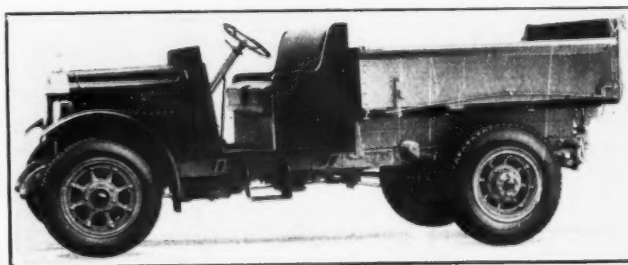
B-K Booster mechanism actuates the foot brakes which are of the expanding type and operate in 20 x 5 1/2 in. drums mounted on rear wheels. The hand brake which is of the contracting type operates on the drive-shaft.

Four semi-elliptic, silico manganese steel springs carry the rolled channel, high carbon frame, which is 9/16 in. thick and 9 in. deep. Wheels are cast steel equipped with 36 x 6 in. solid tires in the front and 40 x 14 in. in the rear on the 5-ton chassis and 36 x 7 in. front and 40 x 16 in. rear on the 7 1/2-ton chassis.

Steering is of the worm gear type. Standard equipment includes oil side and tail lights and hub odometer, in addition to the usual items.

Studebaker

A NEW 3/4-ton delivery car and a special bus chassis designed for intercity operation has been announced by the Studebaker Corp. of America. The delivery car, except for a few changes, is mounted on essentially the



Republic Model 58 Road Builder equipped with a 2-yd. dump body and hoist. 32 x 6 in. pneumatics are standard

same chassis as Studebaker's improved Dictator model, while the bus chassis, designated as Model 76, in some respects is like the Model 75, which was introduced last year. As in the earlier model the new bus chassis is powered by the Commander engine. Many improvements, however, feature the engine.

Since the delivery car and the Dictator chassis are essentially the same, the recent improvements of the latter apply generally to the former. The main difference being that the springs are stronger in the commercial unit. A description of improvements in the Dictator model follows:

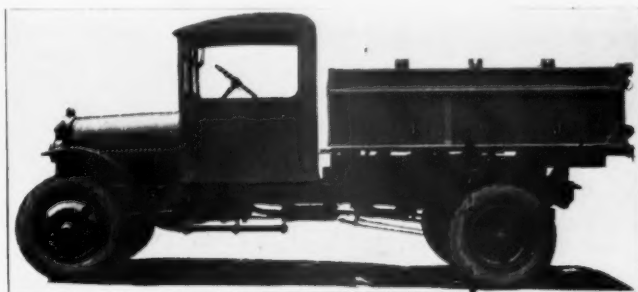
Without changing the bore and stroke of the Dictator engine recent improvements in this engine have stepped up its power to 70 hp. Among the features which have contributed toward this increase in power are a new valve mechanism in which the rocker-arm type of valve operation has been superseded by mushroom tappets and inclined valves for vertical, new timing providing positive overlap at top of stroke, Swan-type manifold with new combustion chamber contour and 1 5/8-in. chrome-nickel steel inlet valves and 1 1/2-in. silchrome steel exhaust valves. A new piston ring layout provides for four rings above and one Saveoil ring below the piston pin. A Lanchester torsional vibration damper located on the crankshaft inside the crankcase is another feature.

Engine suspension has been changed from the three-point to the four-point type, with the front supports mounted on rubber blocks. Improvements in the cooling system include a more efficient radiator core with a narrower radiator, a V-belt driven fan and a thermostat incorporated in the cylinder head. Carburetion is by a Stromberg—UX-2 fed by AC fuel pumps from a 16-gal. tank. The tank filler is located on the outside of the body to the right and in back of the rear fender. Electrical units are manufactured by the Delco-Remy Co.

The frame, reinforced by seven cross-members and wide gusset plates, is 6 1/2 in. deep and 1 3/4 in. flange. Front and rear axles have been redesigned to take Bendix four-wheel brakes and wood wheels. Drums are 12 x 1 3/4 in. The clutch incorporates the Long cushion spring drive and the transmission provides three speeds. Steering is by Ross cam and lever type of gear. Wheels are 20 in. diameter and take 30 x 5.50 tires.

The bus model has a 184-in. wheelbase and weighs 4600 lb. Again, by

changes in the Big Six engine the power has been increased about 30 per cent over the previous model, according to the manufacturer. This has been obtained by increasing the normal running speed to 2800 r.p.m., increasing the opening in the inlet manifold, increasing valve lift from 5/16 to 11/16 in., retiming valves and redesigning the cylinder heads for higher compression. The carbureting system of the new model also includes an AC fuel pump driven off the camshaft. Except that the pistons are of cast iron the engine is identical with that used in the



Two and one-half ton Model T Schacht six, equipped with 34 x 7 in. pneumatic tires. It has a governed speed of 35 m.p.h.

Commander passenger car chassis.

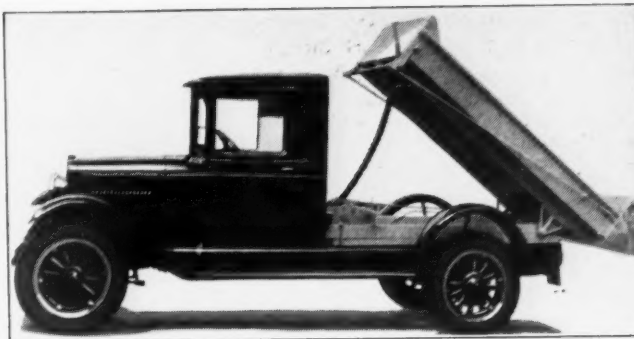
A new parking brake is one of the chassis features. It consists of a 14-in. cast steel disk mounted on the drive-shaft. Braking is effected by a pair of shoes that clamp on each side of the disk. By a new hook-up of the Bendix four-wheel brake system stopping ability in 85 ft., at 40 m.p.h. or in 21 ft. at 20 m.p.h. is claimed.

The Eaton spiral-bevel type axle in the new model has a heavy setscrew mounted on the housing directly back of the ring gear to prevent the gear from springing out of line under heavy loads.

Van malleable iron spoke wheels are employed. When single tires are desired, 34 x 7 pneumatics are supplied. Standard equipment, however, provides 32 x 6.75 balloons, duals on rear.

White

WHITE CO. is now building a gas-electric bus, the electrical equipment of which was developed in conjunction with the General Electric Co. The White six-cylinder 100-hp. engine has been modified and fitted for gas-electric service and the large power-plant has made possible the use of



Ditwiler Saffee Power dump body and transmission operated hoist. It is furnished in five models. Maximum dumping angle 55 degrees

large and powerful electrical equipment.

The generator is driven by a flexible steel shaft which runs clear through the generator to commutator end, the drive being taken through rubber ball joints. The two motors are connected to the underslung worm drive rear axle by short universal joint shafts and the propeller shaft brakes are mounted directly on the rear end of the motors, forming a part of the motor design. Wheelbase is 227 in., overall width 95 in., overall length 358 in. and chassis weight 11,500 lb.

Wood Hydraulic Hoist

THE Wood Hydraulic Hoist & Body Co., Detroit, recently added a new hoist model to its line with the introduction of the G-1, Hi-Speed underbody hydraulic hoist. The unit is designed for short wheelbase, light, speedy, pneumatic tired trucks with close-coupled chassis of 1 and 1 1/2 tons capacity. Its dumping time is claimed to be well within the five-second limit and elevates the body to an angle of 60 deg.

The hoist can be mounted on chassis with loading space behind the cab ranging from 45 to 80 inches and has a total weight of 375 lb. Power is derived from the transmission.

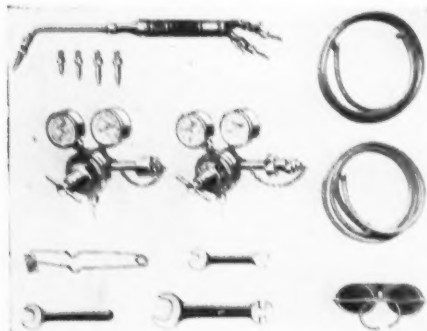
Ditwiler Power Hoist

FIVE models feature the new Ditwiler Saffee Power Dump Bodies recently announced by the Ditwiler Manufacturing Co., Galion, Ohio. The line consists of three dump bodies ranging in capacity from 1 cu. yd. to 2 cu. yd., a 2-ton coal body and a 2 cu. yd. garbage body. Sideboards, straight or flared, partitions and lids for the garbage model are also furnished.

The hoisting mechanism comprises a curved rack which lifts the body, a spur gear which engages with the rack and a worm gear reduction which drives the spur gear. Reverse gears are provided so that the hoist can be operated from direct power take-off. The hoist automatically shuts off when the body reaches its maximum dumping angle of 55 deg. and when it returns to its travel position. It also can be stopped and held in any position by a shift lever in the cab.

Prest-O-Weld Welding OutfitsOxweld Acetylene Co.
30 East 42nd St., New York City

THREE new welding outfits have been placed on the market by the above company, namely: Type W-101-A Auto Repair; Type W-102-A General Purpose, and Type W-102-B Welding. The first is for a shop that has only an occasional welding job



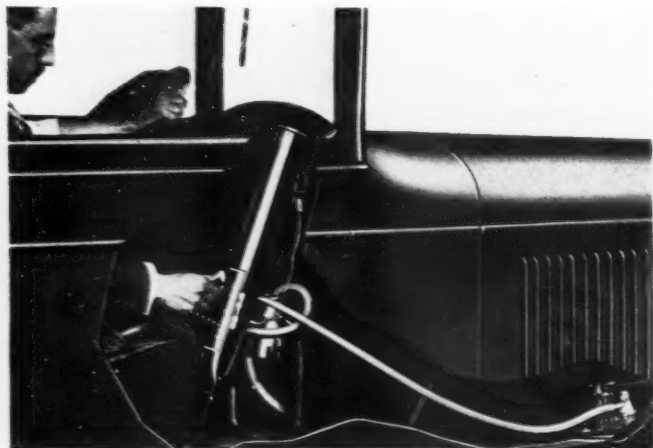
but needs a large size blowpipe for frame straightening. The second is for shops requiring a welding outfit for welding, decarbonizing, heating, soldering, brazing, lead burning and radiator repair. Five welding tips, heating and radiator soldering tips and a decarbonizing blowpipe are included in this outfit. The welding outfit is designed for body and fender work and for welding light and medium castings. It includes five welding tips, a lightweight blowpipe and 3 16 in. hose.

Fuel Economy TesterPenberthy Injector Co.
Detroit, Mich.

THIS device which is mounted in the driver's compartment when making a test supplies gasoline to the carburetor from a bulb calibrated to exactly 1 10 gallon of fuel. Fuel is fed to the carburetor by gravity through a rubber tube which replaces the regular fuel lines. The tester contains an electric fuel pump which pumps gasoline from the vehicle tank or a separate container and discharges it as wanted to the bulb, to the carburetor direct or to both bulb and carburetor.

Wires connecting the fuel pump are provided with spring clips for attachment to the ammeter terminal and any convenient "ground." Tests can be repeated indefinitely without stopping the vehicle or manipulating fuel in open vessels.

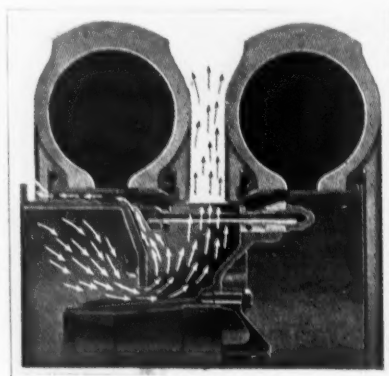
All of the working parts are enclosed in a case which is fitted with a handle. Markings on the bulb showing the one-tenth gallon capacity can be seen through an opening in the case.

**Light Truck Wheels**Dayton Steel Foundry Co.
Dayton, Ohio

A STEEL spoke wheel for light trucks has recently been placed on the market by the above company. It has the typical Dayton hollow arch spoke construction, integral hub and felloe. It is cast in one piece from electric furnace steel and is machined at one set-up, thus assuring concentricity of bearing bores, brake drum pilot and tread.

Vulcan Steel WheelsSteels Wheels, Inc.
60 Park Place, Newark, N. J.

VULCAN steel wheels are constructed with hollow spokes of "I" section and embody a self-cooling feature in the design. As shown in the illustration air which is drawn through holes in the brake drum passes through the hollow spokes and is discharged between the rim and



drum and also through holes in the spacer between rims of the dual tires.

Either Firestone or Goodyear rims may be used on the same wheel. Rim jugs have a full length thread which engages before any strain is imposed on the lug. No tire valve extensions are required with Vulcan wheels.

Puncture-Proof TubeGoodyear Tire & Rubber Co.
Akron

A PUNCTURE-PROOF tube, for use in special types of service, has been introduced by the above company. The tube is of all-rubber construction with an extra thick tread which automatically seals ordinary punctures by compression. It is designed for use on ambulances, fire apparatus, funeral cars and other equipment where delays caused by punctures by nails and broken glass are serious.

Bethlehem Socket Wrench SetSplittdorf-Bethlehem Electrical Co.
Bethlehem, Pa.

THIS set, specially designed for service stations, garages, oil-filling stations and repair shops, consists of 12 vari-sized sockets, 1/2 in. and 3/4 in. male plugs, 10-in. "T" handle and 7/8 in. extension bar. The



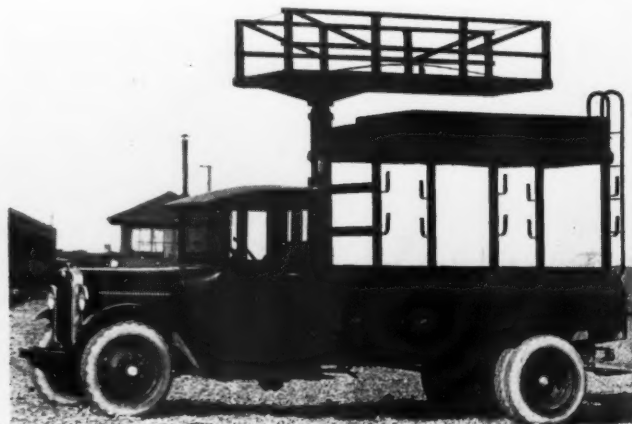
sockets are made of solid steel bar bronched to size, chamfered, knurled and tapered to fit over nuts and bolts in tight places. They are hexagonal and square. The "T" handle is with square adapter and the extension bar with 1/2-in. square socket. All units are copper-plated to prevent rust.

Wood Hydraulic Repair TowerWood Hydraulic Hoist & Body Co.
Detroit

THIS new tower, designed for public utility service, is a new development in elevating working platforms and is adaptable to pneumatic tired speed trucks. The principles involved are the same as in the hydraulic-operated dump truck, the power take-off and gear pump parts are interchangeable.

The cylinder is 7 in. diameter with 1/2 in. wall which carries a hollow piston having a one inch wall. The 9 x 4 ft. working platform with double guard rail and turnbuckle braces is fastened to the top of the piston rod by a heavy collar and held braced by a ribbed steel plate 4 ft. square. The elevating range extends from 8 1/2 ft. to 16 ft., which elevation is obtained in 50 seconds. The platform can be locked at any height and can be swung to any point in its circle.

The illustration shows a Wood repair tower mounted on a Graham Brothers Model O.D.R., 162 in. wheelbase chassis, with a Proctor-Keefe body. The body, especially designed for utility service, is provided with large side compartments, pole racks, iron ladder and side curtains.



Booster Pump for Tire Press

Charles F. Elmes Engineering Works
Chicago, Ill.

A BOOSTER pump which raises the ram of a hydraulic tire press to the point where high pressure is required very quickly is manufactured by this company. The unit embodies a separate pump driven by electric motor and controlled by a push button. Connection with the press cylinder is made by a high-pressure tee inserted in the piping. In operation the push button is depressed until the ram reaches the desired point and then released and pressing then goes on in the ordinary manner. The rate of movement of the ram when the booster attachment is being used, is about six times that when pressing.

The pump unit may be attached to any press made by this company and can also be adapted to other presses.

Two presses of large capacity are included in the line of this company, one of 399 tons capacity and the other of 325 tons rating. The cylinder is bored to an unusual depth to guide the ram and make it possible to revolve the ram and platen. This makes it possible for the operator to inspect the tire and wheel without walking around the press.

Ustograph

United States Recording Instruments Corp.
555 W. 57 St., New York City

THE Ustograph is a recording instrument that will enable large fleet operators and individual owners to obtain a daily written record of mileage and operation of their vehicles. The information it provides permits accurate computation of operating costs and determination of what value and return is being received from investment. Use of the instrument on each unit of a fleet permits comparisons in operation and cost between the whole fleet and individual trucks, which will enable the operator to arrange operating schedules to fit special requirements and routing at the least possible overhead.

Hydraulic Brake Wrench

Bonney Forge & Tool Works
Allentown, Pa.

A NEW chrome vanadium Lockheed brake wrench with heads only 7/32 in. thickness is being marketed by the above company. The thinness of the wrench adapts it for use in the adjustment of Lockheed brakes. The wrench is a double-



ender with 5/8 in. openings at each end to receive the 7/16 S.A.E. adjusting nuts of the brake. One opening is at 22½ degrees and the other at 60 degrees to the handle.

Ray Day Aluminum Piston

Ray Day Piston Co.
Detroit, Mich., and Seattle, Wash.

INDEPENDENT expansion of head and skirt is provided in a new aluminum alloy piston being offered by the above company. A cup-shaped member comprising the head and ring grooves is separated from the skirt by a groove below the lower ring. This member is attached to the piston pin bosses by two vertical supports. The skirt is made with two horizontal cir-



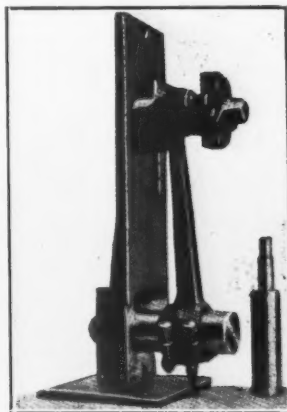
cular ribs which are intended to limit its expansion and permit close fitting in the cylinder bore. The makers recommend a clearance of .002 to .0025 in. for average pistons. The cut around the skirt together with the cylindrical form of the skirt is said to prevent oil pumping. The ribs also prevent oil from being thrown on the cylinder wall through the circular groove.

The piston pin is lubricated by oil collected in a shielded pocket above each boss.

Whitney Aligner

R. S. Whitney Manufacturing Co.
Auburn, Me.

THIS precision tool, known as the Whitney connecting rod assembly aligner, is designed to test the alignment of the

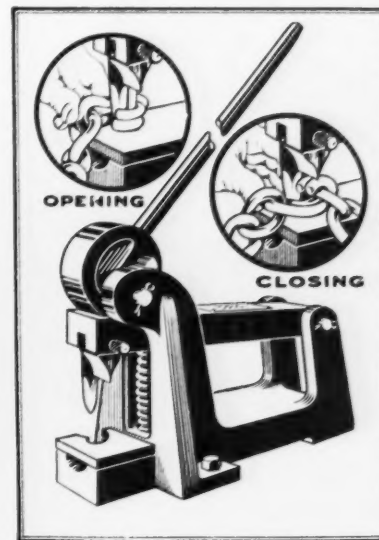


entire connecting rod assembly for twist, bends and extent of the defect. The aligner complete weighs 28¼ lb. and lists at \$22, complete with 2 in. arbor. Additional arbors up to 2½ in., \$2.50.

Heavy Duty Chain Tool

American Chain Co.
215 N. Michigan Ave., Chicago, Ill.

A BENCH tool for repairing heavy-duty truck chains is offered by this company. It is hand operated and a heavy



steel punch opens the hooks and a chisel-like member closes them. One stroke of the lever accomplishes either operation.

Nitralloy

Ludlum Steel Co.
Watervliet, N. Y.

A PROCESS of case-hardening steel by ammonia at comparatively low temperature and a series of special alloy steels which have been evolved for surface hardening by the process are being offered by the Ludlum Steel Co., Watervliet, N. Y.

Nitralloy is the general name of the special alloy steels and the term Nitriding is applied to the process.

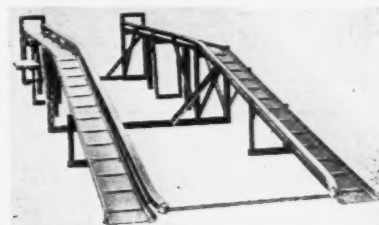
The steel to be treated is subjected to the action of ammonia gas in a closed box for a period of from 2 to 96 hours, depending on the depth of case desired, while the material is heated to a temperature of approximately 875 degrees F. and without subsequent quenching.

The nitrided surface is fully as resistant to the corrosive action of fresh and salt water and moist atmosphere as stainless steel and the makers report wear tests showing greater resistance to metal-to-metal wear than any other steel.

Manley Runway

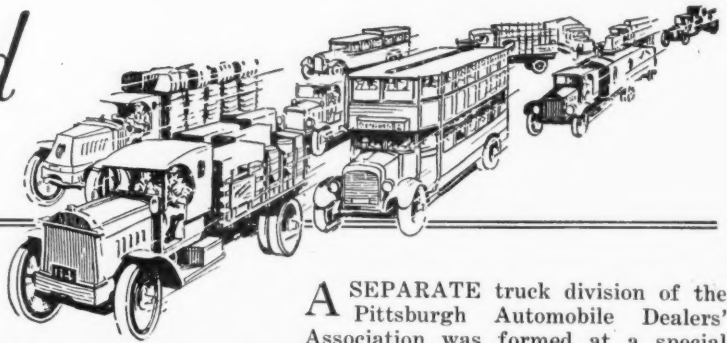
The Manley Mfg. Co.
York, Pa.

THE runway is composed of steel sections and the design of the trackway eliminates outside guard rails. The bed is 15 ft. long and 28 in. high. The incline is 12 ft. long and either single or double



inclines are furnished. End bumpers are integral with the frame supports. Price with single incline is \$105.00 and with double incline \$140.

Have You Heard That ~



TOTAL construction contracts awarded during January in 37 states east of the Rocky Mountains amounted to \$427,168,700, according to F. W. Dodge Corp. This represents an increase of 11 per cent over January of last year. Three districts made new high totals for the month of January, namely, New England, the Central West and Texas. New York state and Northern New Jersey, the Southeastern States, and the Middle Atlantic States reached totals which were next to the highest ever recorded for January.

A U. S. Supreme Court decision of importance to dealers and affiliated credit corporations handling automotive paper was recently rendered in the case of the Commercial Credit Co. The decision holds that a commercial credit company's lien may not be violated by the Federal Prohibition Department. This decision upsets the Washington State statute which provides that automotive vehicles used in transportation of liquor on which tax has not been paid may be libeled and sold by the government.

ALL the latest types of electric street and industrial trucks and allied products produced by more than 25 manufacturers were displayed at the Eighth Annual Electric Truck Show held in New York from March 5 to 10. Various kinds of trucks from a light delivery vehicle used in retail delivery to a six-ton carrier were on display. Another feature of the show was a three-day electric truck owners conference, which was open to all truck operators and representatives of firms having transportation and delivery problems. The conference was sponsored by the Transportation Division, Commercial Section of the National Electric Light Association.

A. J. Brandt has been appointed to take entire charge of all factory operations of the Autocar Co. at its Ardmore, Pa., plant. He was formerly vice-president in charge of operations of Oakland Motor Car Co. From 1916 Mr. Brandt was successively affiliated with E. I. du Pont de Nemours & Co., Inc., General Motors Corp.; Fisher Body Corp., Pacific Malleable Casting Co., and the Oakland Motor Car Co.

RECEIVERS' sale of the Commercial Truck Corp., manufacturers of the CT Electric, was held at the corporation's plant in Philadelphia, March 19 and 20, by order of E. R. Whitney and T. W. M. Hyndman, receivers.



Martin O'Mara, recently elected president of the Indiana Truck Division of the Brockway Motor Truck Corp. Mr. O'Mara resigned as vice-president in charge of Eastern sales for the White company to take over his new position. He will be elected an officer and director of the Brockway company later.

Walter Bauer, president, Pyrene Manufacturing Co., Newark, N. J., died Feb. 12.

GENERAL TIRE & RUBBER CO. has just completed purchase of ground and has started plans for a \$200,000 office and warehouse building at Kansas City, Mo.



One of the 15 Divco trucks recently sold to J. D. Roszell Co., milk dealer, Peoria, Ill. Delivery was preceded by a parade. The group around the truck are officials of the Divco-Detroit Corp. From left to right they are: John Nicol, vice-president; Carl H. L. Flinterman, president; B. H. Eaton, secretary; T. M. Bacon, vice-president; James Roach, Don M. Ferguson, chief engineer, and E. R. Maurer, engineer.

A SEPARATE truck division of the Pittsburgh Automobile Dealers' Association was formed at a special meeting recently held by the parent organization. Invitations to affiliate with the new division have been issued to truck branch managers, distributors and dealers with full membership rights. J. G. McHugh manager of the American-LaFrance Fire Engine Co., has been named chairman of the division; H. L. White, manager of the Autocar Sales & Service, as vice-president and W. N. Owings, secretary of the dealers' association, as secretary.

Ford's latest product, the Luxford taxicab, was shown for the first time in an Eastern branch recently. The body, designed by Edsel B. Ford, is built on the standard Model A chassis. The lines of the body are low and rakish. A single folding seat and a rear seat provides for the accommodation of four passengers. Prices and delivery date have not yet been determined.

MERGER of the Brockway Motor-truck Corp. and the Indiana Truck Company was recently announced by George Brockway, president of the company bearing his name. The consolidation, the combined assets of which exceed \$9,000,000, will be known as the Brockway Motortruck Corp. and be headed by Mr. Brockway. Mr. Brockway announced that the manufacture of both lines will be continued, but the merger would effect economies in production and distribution. Present Indiana sales are largely in the Central, Southeastern and Southwestern States, he said, while Brockway sales are concentrated in the East and in export.

More than 15,000,000 batteries were sold in 1927, according to W. J. Parker at the annual convention of the National Battery Manufacturers Association recently held in Chicago. Mr. Parker also pointed out that during the first six weeks of 1928 some manufacturers showed an increase of 100 per cent over the same period of 1927. The association's plans for the future include the publication of a composite battery data book. Delegates discussed a plan of cooperative advertising as a step for meeting the "new competition."

FUTURE sales plans were discussed at a sales conference of the Divco-Detroit Corp. recently held at the factory in Detroit. The sessions were attended by 13 district managers and pre-

sided over by John Nicol, recently elected vice-president of the corporation in charge of operation. The sales plans, according to Mr. Nicol, provide for the division of the country into 10 zones with district offices in New York, Boston, Philadelphia, Pittsburgh, Buffalo, Cleveland, Detroit, Chicago, St. Louis, Denver, Fort Worth and San Francisco. Plans are being developed for a service and sales policy, particularly adapted to the product. The corporation expects to manufacture approximately 1500 units in 1928.

Mr. Nicol, who has been in the truck business since 1925, comes to Divco from General Motors Truck where he served as branch manager for the past four years. He also represented Federal at Chicago for a number of years.

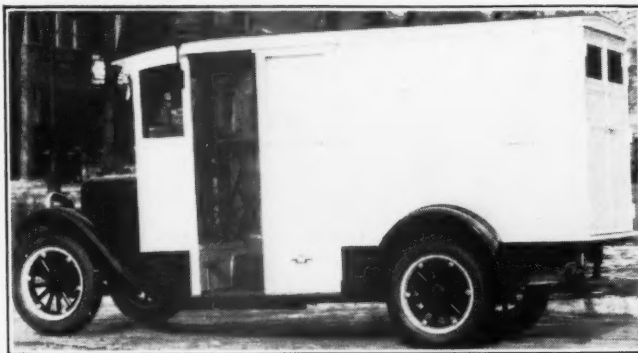
R. B. Vessey has been made assistant to the management of the AC Spark Plug Co., advancing from the position of superintendent of the tool room and automatic department. Other AC promotions include Louis B. Berge, manager of manufacturing; George Mann, Jr., assistant secretary-treasurer, and Walter J. Langdon, assistant comptroller.

McQUAY-NORRIS MANUFACTURING CO. recently purchased the entire automotive business of the King Quality Products Co., Buffalo, manufacturers of piston pins and bolts. The company will be continued as an entity with no change in policy, prices, packages, catalogs or in any way, except the moving of the plant and offices from Buffalo to Indianapolis.

John S. Krauss has been elected president of the L. H. Gilmer Co., manufacturer of fan belts, succeeding L. H. Gilmer, founder of the company, who has been elected chairman of the board. Mr. Krauss, a graduate engineer, rose from factory manager to his present position. He was formerly secretary and treasurer and, later, vice-president and general manager of the Gilmer Co.

IF all of the toll bridges now under construction or proposed in the United States are completed and none of the existing bridges are freed in the meantime, the number of toll bridges will be doubled in the next few years. In a majority of cases of concessions for these toll bridges are being given by Congress to private individuals to operate for profit, frequently without approval of the Bureau of Roads, the governmental body most closely in touch with the public necessities in bridge and highway matters.

A survey of the situation, just compiled by the Bureau of Roads, shows that there were 233 toll bridges in operation in the United States on Jan. 1, 1928. There are at present 29 new toll bridges under construction and 163

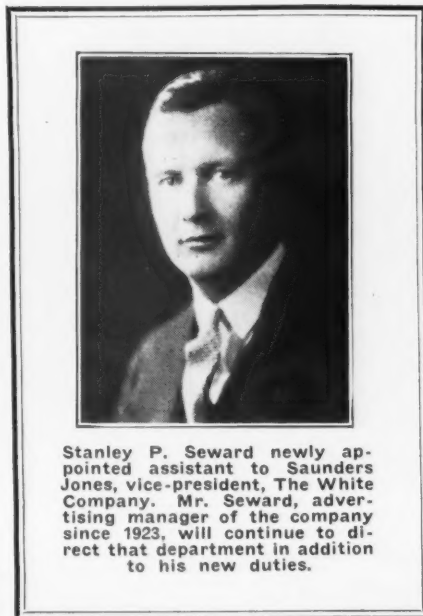


Door-to-door retail delivery body built by the Buffalo Commercial Body Co. This job, known as the Step-N-Drive, is mounted on a Chevrolet chassis and is being offered through the Chevrolet organization. The pedal at the step when depressed half way disengages the clutch and when fully depressed engages the foot brake. The brake pedal is long and may be reached from the step.

proposed for construction. Of the existing bridges, 191 are privately owned and 20 of the 29 under construction are being built under private auspices.

Many state highway officials and others who have studied closely the development and coordination of our road systems—vital factors in truck and bus growth—are strongly opposed to construction of toll bridges for operation by private interests. They say that the value of such investments is created by the public expenditures for improvement of the roads which lead to the bridges and that the public should not be compelled to pay profits to private bridge operators long after it has paid in tolls for the bridges constructed. With equal insistence they oppose the collection of tolls on public bridges except as a means of financing their cost.

B. G. Close has been named vice-president of the King Quality Products Co., of Indianapolis, Ind., which company was purchased recently by the McQuay-Norris Mfg. Co.



Stanley P. Seward newly appointed assistant to Saunders Jones, vice-president, The White Company. Mr. Seward, advertising manager of the company since 1923, will continue to direct that department in addition to his new duties.

PROSPECTS for truck sales were discussed on March 8 by Donald Blanchard, editor of Commercial Car Journal, before the truck manufacturer members of the National Automobile Chamber of Commerce. Summarizing a recent survey Mr. Blanchard said that sales were reaching their highest levels relatively in the Southwest and Southeast with business in the Central States apparently running somewhat ahead of last year for makes other than Ford. He also presented an analysis of market trends as evidenced by the growth in registrations in various parts of the country. Other speakers on the program

included C. W. Stocks, Bus Transportation, and Pyke Johnson, O. B. Pearson and Edward F. Loomis of the N.A.C.C. staff. D. C. Fenner of Mack Trucks, Inc., presided.

A. W. Brownell, business manager of Commercial Car Journal, discussed truck merchandising at a sales convention held at the New York Branch of the Relay Sales Corp. on March 10. At the same meeting, details of selling methods applied to Relay Drive trucks were discussed by L. A. Graham and W. E. Conway.

UNITED STATES oil production during 1927 showed an increase of 17 per cent over 1926 production, according to preliminary figures issued by the Bureau of Mines. A compilation of reports of companies operating gathering lines shows that 894,435,000 barrels of crude petroleum were produced and transported in 1927.

Vehicular theft in New York State has been made more hazardous by the passage of two bills amending the highway law of the state relative to registration. They provide for the listing of all vehicles reported stolen during the current and preceding years, indexing by engine and serial numbers and checking of all applications for registration against these lists.

A DAILY average of 600 visitors attended the two-week automotive transportation exhibit recently concluded by Thornton-Fuller Auto Co., Dodge Brothers and Graham Brothers dealers in Philadelphia. The display included 148 chassis equipped with bodies for service in practically all lines of business. Valued at \$225,000, the exhibit covered 44,000 sq. ft. of floor space. No effort was made to attract anyone not interested in commercial transportation and the attendance log revealed a negligible percentage of idle curiosity seekers.

Thornton-Fuller attributes 129 sales directly to the show, exclusive of those made by dealers in neighboring communities. While figures are not available it is believed that many deals were closed by dealers, who brought their
(Turn to page 30, please)

EATON AXLE & SPRING CO. has purchased the heater business of the Perfection Heater & Mfg. Co. The trade name "Perfection" will be continued. Several members of the Perfection personnel are joining the Eaton organization.

R. C. Bastress, L. W. Benhausen and G. N. McCarthy have been added to the personnel of the Black & Decker organization. Mr. Bastress will represent the company in Indiana and part of Michigan; L. W. Benhausen, western Massachusetts and G. N. McCarthy, Buffalo. Mr. McCarthy replaces H. B. Austin who has been transferred to the Chicago district.

A NOTICEABLE improvement in employment conditions in the automobile industry is reported by the U. S. Department of Labor in its February survey of industrial employment throughout the United States.

W. R. Hellman has been appointed assistant sales manager of the Graham-Paige Motors Corp. Mr. Hellman formerly served with Graham Brothers as district manager on the coast, Southern division sales manager, director of commercial car and truck sales and assistant to Robert C. Graham.

SALES managers of the LeBlond-Schacht Motor Truck Co. recently convened at Cincinnati for discussion of plans and policies for 1928 production, sales and advertising.

Howard A. Winton, secretary of the Heil Company, died Feb. 7 of pneumonia. Mr. Winton entered the Heil organization four years after graduating from the Carroll College in 1919. He held successively the positions of advertising manager, general manager and secretary. He is survived by his wife and three children. He was 33 years old.

INTERNATIONAL HARVESTER CO. reports net profit, after all charges and depreciation, for 1927 of \$23,348,913. This compares with net earnings for 1926 of \$22,658,892.

E. J. Brugger has been reelected president of the Twin-City Transportation Association at the fifth annual meeting of that body. He is associated with Brugger Bros. Packing & Forwarding Co.

NET profit of Mack Trucks, Inc., in 1927 was \$5,844,307 which compares with earnings of \$8,852,453 in 1926. Sales for the year totaled \$55,270,295, against \$69,032,294 in 1926.

E. F. Allen has joined the Buffalo Commercial Motor Car Co. as sales manager for Step-N-Drive delivery cars. Mr. Allen was formerly assistant truck sales manager of the Pierce-Arrow Motor Car Company.

STUDEBAKER CORP. OF AMERICA reports net profit for 1927 of \$11,937,861, which compares with \$13,042,119 for 1926.

Pierce-Arrow Motor Car Co. reports net loss for year ended 1927 of \$783,200 after interest, depreciation and other charges. This compares with net income of \$1,267,694 in 1926.

AUTOMOTIVE parts and accessory business is experiencing a first quarter which seems certain to be one of the busiest in the history of the industry, according to the Motor and Accessory Manufacturing Association. January business is reported as having been the greatest on record for the first month of the year, February as having produced even greater volume and that advance schedules indicate further expansion of business in March.

ANEW 2½-ton model, designated as Model T, has been introduced by the Autocar Company, Ardmore, Pa. This new unit, powered by a 4¼ x 4¼ in., six-cylinder engine, was designed especially for high-speed, long-distance work. A feature of the model is a dual range transmission, mounted back of the regular 4-speed transmission, which gives a total speed range of eight. Pneumatics with dual rears are standard, being 34 x 7 in. all around. The wheelbase is 213 in. and the length from back of seat to end of frame, 17 ft.

S. J. Marshall was elected president of the Larrabee-Deyo Motor Truck Co., Binghamton, N. Y., by a newly elected board of directors at a recent annual meeting of the company. Among the other officers elected are Fred R. Bump, vice-president; F. T. Macey, treasurer, and I. T. Deyo, secretary. Mr. Bump was formerly sales executive of Dodge Brothers. The new board includes S. J. Marshall, president of Endicott Forgings Co.; T. W. Bohan, president of 1900 Washer Co.; Horace W. Davis, president, Ansco Photo Products, Inc.; R. Z. Spaulding, president, R. Z. Spaulding Bakery Co.; J. C. Clark, president, Wylie R. Jones Adv. Agency; and R. G. Pratt, president, Pratt Lumber Co. and Chamber of Commerce of Binghamton.

Coming Events

SHOWS

American Electric Railway Association, Public Auditorium, ClevelandSept. 22-28
Automotive Equipment Association, Coliseum, ChicagoOct. 22-27
National Standard Parts Association, Cleveland AuditoriumOct. 29-Nov. 3
United States Good Roads Show, Des Moines, IowaMay 28-June 1

CONVENTIONS

American Electric Railway Association, Public Auditorium, ClevelandSept. 22-28
Automotive Equipment Association, Grand Hotel, Mackinac Island, June 10-16
Automotive Equipment Association, Coliseum, ChicagoOct. 22-27
National Standard Parts Association, Hollenden Hotel, Cleveland, Oct. 29-Nov. 3
Society of Automotive Engineers, Chateau Frontenac, Quebec, June 26-29
United States Good Roads Association and Bankhead National Highway Association, Des Moines, May 28-June 1

FEBRUARY factory output of Dodge Brothers was 20,727 trucks and passenger cars, a gain of 25.9 per cent over February last year when the total was 16,463. The gain over January, 1928, when 12,764 units were shipped is 62.3 per cent.

Fred Perkins Brand, automotive pioneer, passed away at Clermont, Pa., March 4, following an operation. Starting in the bicycle business, Mr. Brand was associated successively with Locomobile, Kelly truck, Pierce-Arrow in Philadelphia and finally as distributor for Pierce-Arrow in the Cleveland territory. He was 51 years old.

TIMKEN-DETROIT AXLE CO., reports net profit of \$1,540,530 after depreciation and federal taxes for the year ended December 31, 1927, as compared with \$1,772,460 for the corresponding period in the previous year.

Harry Quine, publicity director of the General Tire and Rubber Company, died February 17. Mr. Quine, before his connection with General, was advertising manager of the B. F. Goodrich Tire and Rubber Company. He was 51 years old.

PUBLIC demonstrations under operating conditions of how the Relay principle of truck design uses the weight of the load to move the load will be held in 150 cities and industrial centers from April 30 to May 6 by the Relay Motors Corp.

At a joint meeting of bondholders and stockholders of the Oshkosh Motor Truck Mfg. Co., Oshkosh, Wis., tentative approval was given a plan suggested by W. G. Maxey, receiver, providing for complete reorganization and refinancing. It was announced that the plant showed a net profit of \$24,000 during 1927.

STEWART truck sales increased 41 per cent in 1926 over 1925 and 45.7 per cent in 1927 over the previous year.

Frank Mitchell has been appointed general sales manager of the Gotfredson Truck Corp. of Windsor, Canada. Mr. Mitchell has been identified with the automotive industry in Canada for many years, several of which were spent with the Gotfredson company. He was also a former mayor of Windsor.

WHILE fire in the plant of the Hercules Motor Corp. recently destroyed 350 completed engines and several departments, operations continued with only minor interruptions.

E. O. Johnstone, district sales manager, American Chain Co., has been appointed Pacific Coast distributor with headquarters at 425 Second St., San Francisco.

REO MOTOR CAR CO. reports net profits of \$4,724,331 in 1927 after all charges, which compares with \$3,019,510 in the previous year.

Henry W. Sweet has joined the engineering staff of Fuller & Son Mfg. Co., Kalamazoo, Mich. Mr. Sweet was formerly chief engineer of the Brown-Lipe-Chapin Co.

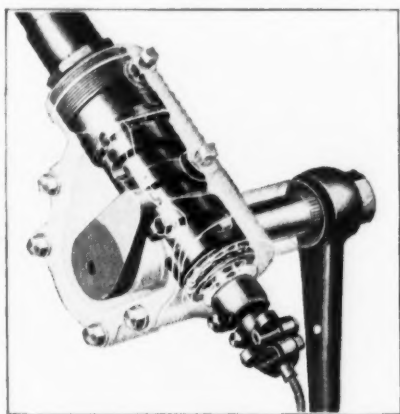
Controls Road-Shock



~ Yet Retains Road Sympathy and Ease of Wheel-Turn

ROAD shock must be controlled in good steering. Nothing is more tiring than the incessant fighting of the wheel that uncontrolled road-shock necessitates—and at times nothing can be more dangerous than violent wheel-whip.

Yet road-shock must be controlled without interfering either with ease of wheel-turn or road-sympathy—the other prime requisites which must be present to afford truly good steering.



The balanced qualities of Ross Steering are largely the result of these features in which the Ross Cam and Lever Steering Gear differs from the conventional type of steering gear:

- Variable Ratio of Cam
- Line Contact Between Actuating and Actuated Members
- Low Internal Pressures
- Powerful Internal Leverage
- High Over-All Efficiency

Herein lies a nice mechanical problem which we believe has been solved to a greater degree of perfection in the Ross Cam and Lever Steering Gear than in any other type. The unique cam and lever principle, exclusive to Ross, reduces road-shock to an almost imperceptible minimum, by its low internal pressures and the almost paradoxical lubricating action resulting from the line contact between the actuating and actuated members. Yet it gives full play to those mechanical features which produce ease of wheel turn (with surprisingly little wind-up), and road sympathy.

It is this “balanced” steering—in which each of these prime qualities operates in full harmony with the others—that provides the greater driving ease, comfort and safety found in Ross-equipped buses.

ROSS GEAR & TOOL CO. ❖ LAFAYETTE, IND.

ROSS *Cam AND Lever* STEERING

They Bought Performance

(Continued from page 19)

be operated at the low speed until the speedometer is steady and the throttle then opened all the way. The time required to reach twenty miles per hour will reveal the comparative performance ability of the powerplant. After a number of tests a standard of acceleration can be set up by which vehicles coming into the shop, and finished repair jobs, may be judged.

If a long, level stretch of road is not available an upgrade may be used with a consequent increase of the time required to reach a given speed.

Combination jobs are much easier to sell if a flat rate price is established for them and this can be done whether or not the flat rate plan has been adopted in the shop. The carbon and valve and "tune-up" combination is easier to flat rate than any others. With proper equipment an attractive price can be established for the work and much additional work can be brought into the shop by advertising, phone calls or personal solicitation.

Keeps Trucks Moving

(Continued from page 14)

the same as new, will cost \$300 to \$500, depending on the condition of the one taken in exchange. One engine might merely need new bearings and a general overhaul; another might need a new block or a new crankcase or other parts that run into considerable money. Whatever it needs to put it in first class condition, so it can be guaranteed the same as a new one, is done to it and that is what the owner pays for. K. V. Schwarz, truck sales manager, says about twenty engine exchanges have been made in the two years this feature of the exchange plan has been in operation and that it has been a success in every way.

Other schemes for keeping owners' trucks going are also employed. For example, radius rods require rebushing but the owner can't afford to leave the truck in the service station long enough to have the complete job done at one time. Arrangements will be made for him to bring the truck in at night and one side at a time will be rebushed. Or perhaps a tire gets hot and comes off out on the road; Neuman will send out a complete installation, including wheel, bearings, and tire, and make an exchange with him, leaving him to go right ahead with his job and bringing his wheel in for rebuilding and retiring.

Mr. Schwarz says that as a result of such service features some Neuman truck owners have operated their vehicles for three years and longer without ever bringing them into the service station.

This policy of placing the customer's interest first begins with the very first negotiations to sell him a truck, Mr. Schwarz said, and continues as long as he remains an owner.

"We don't want anyone to lose money on a Pierce-Arrow truck," was the way he summed up the principle. "It is not merely our purpose to sell trucks; it is our purpose to help the truck operator to do his work as efficiently and profitably as possible and we will not knowingly be a party to any transaction that is likely to result in a loss to the customer. By using high-pressure methods, we could make many sales that we lose, but we believe that our policy pays in the long run."

William F. V. Neuman has been a dealer or distributor for nearly a quarter of a century and has been Detroit distributor of Pierce-Arrow cars and trucks for 18 years. It is significant, too, that Mr. Schwarz has been his truck sales manager for nine years. Besides Mr. Schwarz, who devotes much of his time to selling, there are four truck salesmen.

Group Bonus Plan

(Continued from page 16)

hence the bonus of the individual and of the group.

Proponents of the group bonus plan of paying service mechanics believe that it has a number of advantages over other methods of compensation. In the first place, it provides an incentive to the men to work rapidly. It is fair to the men, as they are paid for idle time and hence tends to develop organization morale. Within the group, a spirit of teamwork and helpfulness is developed and, where a man needs help on a job, he has no trouble getting it from others in the group. It does not encourage the over-industrious man to work overtime to increase his earnings. It puts the management under pressure to sell maintenance to provide a steady volume of work in order that idle time will not form too large a percentage of the total.

These advantages as well as the disadvantages of the group bonus plan as pointed out by advocates of the piece-work method, will be discussed in greater detail in a continuation of this article which will appear in the April number.

Solving Haulage Problems

(Continued from page 13)

his truck from a competitive dealer has its value in that this type of owner is generally reluctant to take his truck to the representative who handles that particular make since he did not buy his truck there. He also feels that the dealer who sold him the truck is not vitally interested in it after it has been paid for, as he handles another make of truck. Though he has not bought an orphan vehicle, he might be called an "orphan owner." It is this man that Mr. Baumgartner especially wishes to reach because if he "shoots square" with him the man eventually will be a prospect for a new truck and probably

considerably sooner than the owners of new trucks.

When Mr. Baumgartner or one of his men sells and delivers a truck, they see that the owner, and the driver, understand the operation of the truck. Many drivers, who are familiar with other trucks, may not be completely acquainted with the Fageol, yet, being experienced men, dislike to ask questions. Then the salesman steps in and engages the driver in general conversation about trucks, from which almost invariably come questions as to the operation of the particular truck and the special model in hand. It may be inferred from this that both Mr. Baumgartner and his salesmen "know their trucks"—which they do.

A constant follow-up record is kept of every sale, and the buyer is assured that he is at all times welcome at the branch; that the advice and information is free; that he will not get a bill "every time he sticks his head in the door," and that by calling frequently he will be able to keep his truck working at maximum efficiency longer than otherwise.

"Finally," said Mr. Baumgartner, "my salesmen know the inside details of the office. They don't get a man's name on the dotted line and consider the sale complete. They must deliver the truck to him, show him how to operate it, arrange all the contracts and securities, attend to the insurance, and, finally enter the whole transaction in the record at the branch. Ten days after the sale, the salesman must call on the owner, inspect the truck and see that it is operating as it should. If it is not so operating, he must find the reason."

Transportation Exhibit

(Continued from page 27)

prospects to the show. Many lone dealers from various distant points throughout the country also were present.

Although sales resulting directly from the show were gratifying to the company, the management feels that the educational effect of the show was of greater significance, the benefits of which would be felt through the remainder of the year. In the opinion of the company the 148 different body styles on exhibit served to bring about a greater appreciation of the large scope of service in which Graham Brothers trucks can be used.

Large fleet operators especially were invited to send all employees interested in motor transportation. As a result of this direct solicitation many drivers and mechanics were present, some in overalls, others in uniform. Bankers, railroad executives of all sorts of business enterprises were also attracted.

The exhibit was well advertised locally, preparations having been made three months before the opening day. Besides a special series of six advertisements, paragraphs were inserted in the regular ads calling attention to the show. About 150,000 pieces of direct mail and two radio announcements completed the advertising announcement.

Vital Features

1. POWER *for the Grades*
2. SPEED *for the Open Roads*
3. QUICK ACCELERATION *in Traffic*
4. SMOOTHNESS *in Operation*
5. DEPENDABILITY *in Performance*
6. ECONOMY *in Maintenance Costs*

All these vital features—and more—are available in the new Sterling Sixes. That is why they readily appeal to motor truck users who require dependable and economical hauling service. Dealers everywhere are finding it profitable to sell this popular line of quality motor trucks.

Sterling Motor Truck Company
Milwaukee Wisconsin

We offer dealers a liberal selling plan. Many desirable franchises are still available. Write for new illustrated broadside showing our complete line of trucks.

Sterling

SIXES

CHAIN • WORM • BEVEL DRIVE • • • 1½ TO 10 TON CAPACITY



Model DC 25

A well-balanced, ruggedly constructed motor truck, equally well adaptable for commercial or dump hauling. The standard chassis is designed to haul 6 to 8 tons. A 3-range over and under drive auxiliary transmission is available, providing 12 forward speeds.

BOSCH

MAGNETO EQUIPPED

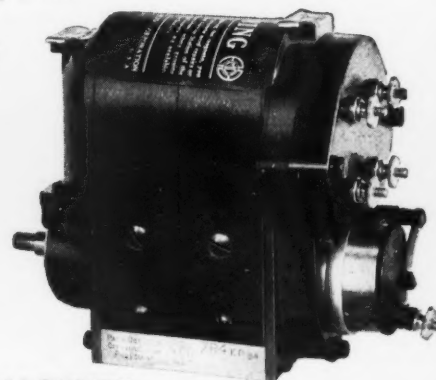
for DEPENDABILITY

Read the roster of leading motor truck manufacturers that are using large numbers of Bosch Magneto. It is conclusive evidence of Bosch Dependability — the best built trucks require the best ignition equipment. Dependable delivery requires dependable ignition, a fact well recognized by truck operators and truck builders. Win manufacturers and experienced buyers — specify Bosch Magneto. Read this impressive list of leading truck manufacturers who use Bosch Magneto.

White Motor Company . . . Cleveland, Ohio.
The Autocar Company Ardmore, Pa.
Diamond T Motor Car Company . . . Chicago, Ill.
Reo Motor Car Company Lansing, Mich.
Nelson-Le Moon Company Chicago, Ill.
Stewart Motor Corp. Buffalo, N. Y.
Republic Motor Truck Co. Alma, Mich.
Acme Motor Truck Co. Cadillac, Mich.
American-La France Fire Engine Co. Elmira, N. Y.
LeBlond-Schacht Co. Cincinnati, Ohio.



BOSCH MAGNETO
TYPE ZR4-IC



BOSCH MAGNETO
TYPE ZR4

AMERICAN BOSCH MAGNETO CORPORATION, SPRINGFIELD, MASS.

Branches:

New York

Chicago

Detroit

San Francisco

Over 2,000 Service Stations. Service Everywhere

CLARK TRUCK WHEELS

WITH STRENGTH OF STEEL



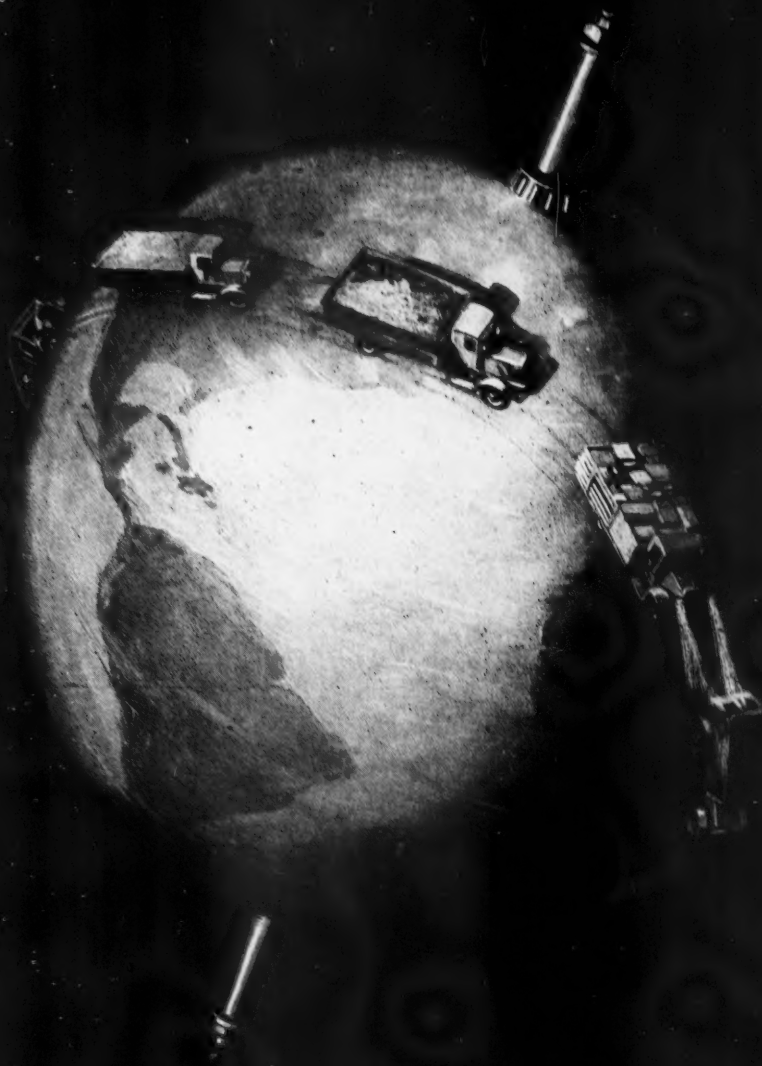
Positive brake alignment required by four-wheel brakes demands that modern motor trucks be equipped with metal wheels.



Clark Wheels are positively concentric as they are fully machined at one setting insuring equality of compensation on brake assembly.

CLARK EQUIPMENT COMPANY ❖ ❖ ❖ BUCHANAN, MICHIGAN

SPEEDING THE PROGRESS OF THE WORLD



Axles in service are the best test of axle merit. Thousands of Clark Axles are out in service under the better grade trucks of the larger manufacturers: four or two wheel brakes, hydraulic or mechanical.

CLARK EQUIPMENT COMPANY
BUCHANAN - MICHIGAN

CLARK AXLES

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Bus Use Are Designated in the Following Table by Reference Sign (\$) in Front of the Name

For Motor Bus Chassis See Pages 46 and 47

(Where prices are not given it is because we have been unable to get them from authoritative sources)

Key of abbreviations, page 48

Trade Name and Model	General			Engine						Electrical System		Clutch	Gearset		Rear Axle		Gear Ratio		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Chassis Weight (Lbs.)					
	Standard Wheelbase (Inches)	Tire Size		Bore and Cylinders	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System			Ignition System (Make)	Generator and Starter (Make)	Type and Make	Make and Model	Location	No. of Forward Speeds						Universal (Make)	Type	Total Reduction in High	Total Reduction in Low	Brakes, Location
		Front (Inches)	Rear (Inches)							Carburetor (Make)	Pump Feed																	
1000 Pounds																												
Chevrolet Cap. Com.	308 107	S 30x4.50	Own	4-34x4 1/2	21.7 H	PS	Non	Non	Har	Car	A	D-R	D-R	P. Own	Own Nat.	U	3	Own	Own	S.S.	Own Nat.	Own	Jax	1685				
General Motors T-11	585 110	B 20x4.75	Pontiac	6-34x4 1/2	25.3 L	PC	Non	Non	McC	Car	V	D-R	D-R	P. Own	Own Nat.	U	3	Own	Own	Det	Own	Own	Kel	1820				
Graham Bros. SD	585 108	B 20x4.75	Dodge	6-34x4 1/2	24.0 L	SP	Non	Non	McC	Car	V	D-R	D-R	P. Own	Own Nat.	U	3	Own	Own	S.S.	Own	Own	Kel	2280				
Reo Speed Wagon Jr.	895 115	B 22x5.25	Con	4-35x4 1/2	25.3 L	PC	Non	Non	Har	Sch	V	A-L	A-L	P. Own	Own Nat.	U	3	Own	Own	S.S.	Own	Own	Kel	2390				
Rugby Com. Ch.	470 103	P 30x3 1/2	Con	4-35x4 1/2	18.2 L	PC	Non	Non	Har	TH	V	A-L	A-L	P. Own	Own Nat.	U	3	Own	Own	S.S.	Own	Own	Hay	1680				
1500 Pounds																												
Graham Bros. DD	670 116	B 31x5.25	Dodge	4-37x4 1/2	24.0 L	SP	Non	Non	McC	Site	V	N-E	N-E	P. Own	Own Nat.	U	3	Dodge	Dodge	Det	Own	Own	Kel	2170				
Graham Bros. DD	685 116	B 31x5.25	Dodge	4-37x4 1/2	24.0 L	SP	Non	Non	McC	Site	V	N-E	N-E	P. Own	Own Nat.	U	3	Dodge	Dodge	Det	Own	Own	Kel	2210				
Harvester Spec. Del	1460 136	P 30x5.25	Wau X	6-34x4 1/2	19.8 L	PC	Non	Non	Har	Zen	G	D-R	D-R	P. Own	Own Nat.	U	3	M-M	Est	Det	Own	Own	Kel	3000				
Kloster Post Mail	110 110	B 30x5.25	Con	6-27x4 1/2	19.8 L	PC	Non	Non	Har	Zen	G	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5290	Det	Own	Own	Sun	2375				
Rugby Fast Mail	895 118	B 30x5.25	Con	6-27x4 1/2	19.8 L	PC	Non	Non	Har	TH	V	A-L	A-L	P. Own	Own Nat.	U	3	Spi	Own	Det	Own	Own	Hay	2250				
Studebaker	925 113	B 32x6.00	Own	6-34x4 1/2	19.8 L	PC	Non	Non	Har	Str	V	A-L	A-L	P. Own	Own Nat.	U	3	Own	Own	Det	Own	Own	Kel	2415				
Velo	1165 112	B 30x5.25	Own	6-34x4 1/2	27.3 L	FP	Non	Non	Har	Str	V	A-L	A-L	P. Own	Own Nat.	U	3	Spi	Own	Mar	Own	Own	Kel	2352				
1 Ton																												
Acme 14	120	P 30x5	Con H8	4-35x4 1/2	18.2 L	PC	Non	Non	Per	TH	V	A-L	A-L	P. Own	Own Nat.	U	3	M-M	Sal 1595E	Det	Own	Own	Rim	2000				
Acme 16	120	P 30x5	Con 20L	4-35x4 1/2	18.2 L	PC	Non	Non	Per	TH	V	A-L	A-L	P. Own	Own Nat.	U	3	M-M	Sal 1595E	Det	Own	Own	Rim	2100				
Acme 20P	1185 132	B 32x6.00	Con 15C	6-34x4 1/2	27.3 L	PC	Non	Non	Chi	Zen	G	A-L	A-L	P. Own	Own Nat.	U	3	Spi	Sal 1595E	Det	Own	Own	Rim	3300				
Bierman	138	P 30x5	Con 8R	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Sal 1595E	Det	Own	Own	Rim	3300				
Chevrolet Cap.	405 124	B 30x4.40	Wau XA	4-34x4 1/2	21.7 H	PS	Non	Non	Har	Car	V	D-R	D-R	P. Own	Own Nat.	U	3	Own	Own Cap.	Det	Own	Own	Hay	3500				
Chevrolet A.X.	140	P 30x5	Wau XA	4-34x4 1/2	19.8 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Own	Own Cap.	Det	Own	Own	Hay	3500				
Clyde 16	140	P 30x5	Con 84	4-34x4 1/2	28.9 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Pet	Tim 5260	Det	Own	Own	Hay	3450				
Commer 8A	130	P 30x5	Con 11U	4-34x4 1/2	25.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5260	Det	Own	Own	Hay	3450				
Concord K	132	P 30x5	Con 18E	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Blo	Cal 5308	Det	Own	Own	Hay	3450				
Corbett 20	132	P 30x5	Con 12C	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5260	Det	Own	Own	Hay	3450				
Day-Elder M	1345 131	P 30x5	Con 15C	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5260	Det	Own	Own	Hay	3450				
Diamond 776	130	P 30x5	Har OX	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5260	Det	Own	Own	Hay	3450				
Dudley 4	130	P 30x5	Lye CT	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Tim 5260	Det	Own	Own	Hay	3450				
Eagle 10	130	P 30x5	Wau X	4-34x4 1/2	19.8 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Pet	Tim 5260	Det	Own	Own	Hay	3450				
Federal 10	124	P 30x5	Wau X	4-34x4 1/2	19.8 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Pet	Tim 5260	Det	Own	Own	Hay	3450				
Federal Scout	140	P 30x5	Con 31L	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Blo	Sal F	Det	Own	Own	Hay	3450				
Flahar Jr. Express	1485 136	P 30x5	Bud WTU	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Sal F	Det	Own	Own	Hay	3450				
Garford 20	1595 136	P 30x5	Bud H86	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Blo	Sal F	Det	Own	Own	Hay	3450				
General Motors T-19	1695 132	P 30x5	Bud H86	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Sal F	Det	Own	Own	Hay	3450				
General Motors T-29	1095 120 1/2	P 30x5	Bud H86	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Sal F	Det	Own	Own	Hay	3450				
Godfredon 20 B	865 126	P 30x5	Bud H86	4-34x4 1/2	27.3 L	PC	Non	Non	Har	Zen	V	D-R	D-R	P. Own	Own Nat.	U	3	Spi	Sal F	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3	U-M	Tim 5260	Det	Own	Own	Hay	3450				
Graham Bros. BD	980 137	P 30x5	Dodge	4-34x4 1/2	24.0 L	SP	Non	Non	McC	Sch	V	N-E	N-E	P. Own	Own Nat.	U	3											

Clinton 32	163	P 32x6	Wau V	25.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Clydesdale 12	174	P 32x6	Con 8R	27.3L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Clydesdale 14	174	P 32x6	Con 8R	27.3L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Commerce SDH 11	118	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Commerce SDH 11	118	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V	Str	D-R	D-BL	B-L 31	U	Blo	Cla 501	14	6.25	29.5	A	Shu 5405	Rev	Ros	Van	Flr	3650
Corbett 23	140	P 32x6	Con S4	28.0L	FC	Non	Own	Zen	V																	

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Trade Name and Model	General		Engine					Electrical System		Clutch	Gearset	Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering (Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.)									
	Standard Wheelbase (Inches)	Tire Size	Number of Cylinders	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Carburetor (Make)			Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Type and Make							Make and Model	Location	No. of Forward Speeds	Underdrive (Make)	Final Drive	Type	Total Reduction in Mph	Total Reduction in Low	Brakes, Location
1½ Ton—(Cont'd)																														
United 3006	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
U. S. L.	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
U. S. L. N.	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
Vette	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
Victor 40	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
Wachusett J.	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
White 20A	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
White-Will N.N.	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
Woods 31B4	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
World D-8	148	P 30x5	6-3/4x4 1/2	27.3	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	3	4	D	5.96	28.08	A	Shu 310	Det	Ros	Van	3500						
2 Ton																														
Ame 44	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Ame 46	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Ame 48	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Ame 49	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
American La France 9R	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Armstrong 40	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Atterbury 24R	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Autocar A	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Brookway EY	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Chicago 20 XL	150	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Clinton 42	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Clydesdale 9	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Coleman C-25	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Concord GX	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Corbett 44	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Corbett 640	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Day-Elmer H	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Day-Elmer HB	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Defiance FT	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Diamond T4	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Diamond T3	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L	PC	Non	Per	Zen	A-L	A-L	D-B-L	B-L 31	4	4	D	6.25	30.0	A	Shu 310	Det	Ros	Van	4000						
Douglas	153	P 32x6	6-3/4x4 1/2	28.9	L																									

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Trade Name and Model	Standard Wheelbase (Inches)	Tire Size		Make and Model	Number of Cylinders	N.A.C.C. Rated H.P.	Engine			Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (Lbs.)			
		General					Valve Arrangement	Cooling System	Governor (Make)	Radiator (Make)	Fuel System		Ignition System (Make)	Generator and Starter (Make)	Type and Make	Make and Model	Final Drive	Total Reduction in High							Total Reduction in Low	Broken Location	
		Front (Inches)	Rear (Inches)								Carburetor (Make)																Fuel Feed
1/2 Ton—Cont'd																											
Amel-France W.	9850	S 36x7	S 36x8	Ow 2R	4-4 1/2	28.9	PS	Ow	Zen	V	Bo-A	Ow	Ow 2R	4-4 1/2	39.12	7.57	Mer	Roe	Day	Day	6000						
Armstrong 50	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	Han	Zen	V	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Armstrong 50-6	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	Han	Zen	V	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Armstrong 2710	122	D 32x6	D 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Atterbury H.	114	S 36x8	S 36x8	Ow 2R	4-4 1/2	28.9	SP	Pha	G&O	G	Bo-A	Ow	Ow 2R	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Bedman	120	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Brooklyn 8V	120	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Chicago 28V	120	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Cyclotron 8	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Corbett 56	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Day-Elder 1	144	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Defiance E 2	144	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Denby 43	122	D 32x6	D 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Diamond T-14	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Diamond T-16	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Federal 250	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Fisher Heavy Duty	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Fisher Heavy Duty	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Garford 50-6	122	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
General Motors K-54	3750	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Godfrey 51	3000	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Godfrey 51	3000	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Gramm 504N	2985	D 32x6	D 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Gramm-Bernstein 125	144	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Gramm-Bernstein C6	160	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Gramm-Bernstein C6	160	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Grass Premier 51-4	140	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Grass Premier 51-4	140	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Guider D9	2050	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hahn K. Spec.	144	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hahn 50	160	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Harvey WFC.	3500	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Harvey WFC.	3500	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hawkeye 56	3000	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hawkeye 56-60	3100	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hawkeye 56-60	3100	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hendrickson ST	3400	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Hug 51, 115A	127 1/2	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Indians 615A	136	P 32x6	P 32x6	Lyc TF	6-3 3/4	38.4	PC	Mon	Fed	G	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Int. Harvester 54C	140	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Int. Harvester 54C	140	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
King-Zeller 45	158	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
King-Zeller 45	158	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim	4-4 1/2	40.5	9.25	Mar	Roe	Day	Day	5300						
Kiesel	168	S 36x8	S 36x8	Con KB	4-4 1/2	28.9	PC	K.P.	Ow	Fed	Bo-A	Tim	Tim														

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General			Engine					Electrical System		Clutch	Gearset		Rear Axle		Gear Ratios		Front Axle and Model		Springs (Make)		Steering Gear (Make)		Wheels (Make)		Chassis Weight (lbs.)			
Trade Name and Model		Chassis Price	Standard Wheelbase (Inches)	Tire Size	Make and Model	Bore and Stroke	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System	Ignition System (Make)	Generator and Starter (Make)	Type and Make	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low	Brakes, Location	Front Axle and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Chassis Weight (lbs.)		
1 Ton—Cont'd																												
P 36x8	DS36x8	146	146	36x8	Con 15H	4-4 1/2x5 1/2	48	7	PC	Pie	G&O	Str	Ele	N-E	Dyn	D	D-B-L	B-L 60	W R	W R	6 60	57 0	E	Tim 1632B	Sle	Roe	Roe	10000
S 36x8	DS36x8	146	146	36x8	Bud BUS	4-4 1/2x5 1/2	38	4	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Bud BUS	4-4 1/2x5 1/2	38	4	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
P 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8	PC	Non	R-T	Str	Con	Dyn	Dyn	D	D-B-L	B-L 55	W R	W R	10 45	99 3	A	Tim 1632B	Sle	Roe	Roe	8350
S 36x8	DS36x8	146	146	36x8	Con 8T	4-4 1/2x5 1/2	40	8																				

[illegible]

Motor Bus Chassis Specifications

For Other Chassis Which Are Recommended and Adaptable for Bus Use, See Models Having Sign (\$)

[illegible]

†—Two.

Electric Commercial Cars

Name and Model Number	Total Weight Based on Four Tires	Chassis Weight— Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drives	Rear Axle	Spring	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
C.T.H-1	5600	2400			1850	14	A	55	G-E	Own	4	Own	F	She	8 36x4	8 36x4	W	108	67
C.T.F-1.5	6000	2800			2475	14	A	60	G-E	Own	4	Own	F	She	8 36x3½	8 36x4	W	94	67
C.T.H-1.5	6000	2800			2475	14	A	60	G-E	Own	4	Own	F	She	8 36x3	8 36x4	W	116	67
C.T.F-2	8000	3100			2675	14	A	50	G-E	Own	4	Own	F	She	8 36x3½	8 36x5	W	96	67
C.T.H-2	8000	3100			2675	14	A	50	G-E	Own	4	Own	F	She	8 36x3½	8 36x5	W	124	67
C.T.F-4	11950	4200			3250	12	A	50	G-E	Own	4	Own	F	She	8 36x4	8 36x7	W	116	67
C.T.A-7	17700	5800			5150	11	A	45	G-E	Own	4	Own	L	She	8 36x6	8 36x7	W	122	58
C.T.F-7	17900	6000			4300	11	A	45	G-E	Own	4	Own	F	She	8 36x6	8 36x7	W	136	67
C.T.A-10	22250	6500			4500	10	A	45	G-E	Own	4	Own	D	She	8 36x7	8 36x8	W	132	58
C.T.F-10	22750	7000			4500	10	A	45	G-E	Own	4	Own	F	She	8 36x6	8 36x8	W	152	67
C.T.F-14	28850	8000			5000	8	A	45	G-E	Own	4	Own	F	She	8 36x7	8 36x8	W	152	67
Electruck 48	8700	3600				15	A	50	G-E	G-E	4	C	Own	Eat	8 34x4	8 34x5	Ros	112	60
Electruck 39	10400	4200				15	A	50	G-E	G-E	4	C	Own	Eat	8 34x4	8 34x6	Gem	135	60
Electruck 27	32000	12200				12	A	50	G-E	Own	5	C	Own	Eat	8 36x7	8 40x14	Gem	168	70
O.B-B						13			G-E	Own		C	D						
O.B-C						11			G-E	Own		C	D						
O.B-D						14			G-E	Own		C	D						
Walker 10	2400					15	H&S	60	Wes	Own	4	S	Own	Mat	8 32x3½	8 32x4	Ros	109°	66
Walker 20	3000					15	A	50	Wes	Own	5	Own	Own	Mat	8 34x3½	8 36x4	Ros	94°	66
Walker 25	3400					14	A	50	Wes	Own	5	Own	Own	Mat	8 34x4	8 36x5	Ros	101°	66
Walker 45	4200					14	A	50	Wes	Own	5	Own	Own	Mat	8 36x4	8 36x6	Ros	114°	66
Walker 50	4800					13	A	50	Wes	Own	5	Own	Own	Mat	8 36x5	8 36x8	Ros	126°	66
Walker 65	6500					11	A	50	G-E	Own	5	Own	Own	Mat	8 36x5	8 36x8	Ros	131°	66
Walker 75	7200					10	A	50	G-E	Own	5	Own	Own	Mat	8 36x6	8 36x8	Ros	141°	66
Ward A211	4650	1800		1150		15	S	75	G-E	Own	4	W	She	She	8 32x3	8 32x3½	Own	88	56
Ward B-222	6000	2300	1020	1700		14	S	84	G-E	Own	4	W	She	She	8 32x3½	8 32x4	Own	91	62
Ward C-211	8000	2670	2170	2850		13	S	85	G-E	Own	4	W	She	She	8 32x3½	8 31x5	Own	96	64
Ward E-211	12000	3570	4290	5430		12½	S	86½	G-E	Own	4	W	She	She	8 34x4	8 36x6	Own	108	65
Ward G-211	16000	4500	6180	7760		11	S	44	G-E	Own	5	W	She	She	8 36x5	8 36x8	Own	120	68
Ward J-211	22500	6630	9500	11200		10	S	39½	G-E	Own	5	W	She	She	8 36x6	8 36x10	Own	136	70
Ward M-211	30000	8430	13780	15920		9	S	36	G-E	Own	5	W	She	She	8 36x7	8 36x12	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

KEY OF ABBREVIATIONS

For addresses of manufacturers listed below see Chilton Catalog and Directory

Wheelbase *More than one wheelbase furnished.	Tires B—Balloons. P—Pneumatics standard equip. DP—Dual pneumatics standard equipment. S—Solids. DS—Dual solids. *—Tires at extra cost. †—Pneumatics can be furnished at extra cost.	Engine Bud—Buda Co. Con—Continental M. Corp. D—Head and Side. FP—Full Pressure to all bearings including wrist pins. H—Overhead. HaS—American Car & Foundry Co. Her—Hercules Motor Corp. I—In Head. Jackson—Master M. T. Mfg. Co. Kni—Yellow Sleeve V. E. Wks. L—L-Head. Lyc—Lycorning M. Corp. PC—Pressure to all crankshaft and connecting-rod bearings. PG—Pump, Gravity & Splash. PS—Pressure with splash. SP—Circulating splash. T—T-Head. Wau—Waukesha M. Co. Wis—Wisconsin M. Mfg. Co. Yell—Yellow Sleeve V. E. Wks. X—Sleeve.	Governor Dup—Eisemann Magneto Corp. Han—Handy Gov. Co. K. P.—K. P. Products Co. McC—E. R. Klemm. Mon—Monarch Gov. Co. Non—Not Supplied. Pha—Pharo Mfg. Co. Pie—Pierce Governor Co. Sim—Eisemann Magneto Corp. Wau—Waukesha M. Co.	Radiator Bow—Bowerbank, E. R. Co. Bus—Bush Mfg. Co. Chi—Chicago Mfg. Co. Fed—Feddars Mfg. Co. G&O—G. & O. Mfg. Co. Har—Harrison Rad. Corp. Lon—Long Mfg. Co. McC—McCord Rad. & Mfg. Co. McK—McKinnon Dash Co. Mod—Modine Mfg. Co. Per—Perfex Corp. R-T—Rome-Turney Rad. Co.	Fuel System B.B.—Penberthy Injector Co. Car—Carter Carburetor Co. G—Gravity. Hol—Holley Car. Co. Joh—Johnson Co. Mar—Marvel Carburetor Co. O—Pump. P—Pressure. Sch—Wheeler Schebler Car. Co. Ste—Detroit Lubricator Co. Str—Stromberg Motor Dev. Co. Til—Tillotson Mfg. Co. V—Vacuum. Zen—Zenith-Detroit Corp.	Electrical Systems †—Generator & Starter at Extra Cost. †—Starter not supplied, Generator at Extra Cost. *—Starter at Extra Cost. A-L—Electric Auto-Lite Corp. Apo—Apollo Magneto Corp. Bos-A—Am. Bosch Magneto Co. Bos-R—Rob. Bosch Magneto Co. Con.—Conn. Tel. & Elec. Co. DJ—DeJon Elec. Corp. D-R—Delco-Remy Co. Dyn—Owen Dyneto Corp. Els—Eisemann Magneto Corp. Eli—Electric S. B. Co. G&D—Gray & Davis. Gou—Gould S. B. Co. L-N—Leece-Neville Co. N-E—North East Elect. Co. Non—Not Supplied. Pol—Prest-O-Lite Co. Sci—Scintilla Magneto Co. Spl—Splittorf Electrical Co. USL—U. S. Light & Heat Corp. Ves—Vesta Battery Corp. Wes—Westinghouse E. & M. Co. Wil—Willard S. B. Co.	Clutch and Gearset *—Other ratios optional. †—Auxiliary two-speed transmission optional. A—Amidships. B & B—Borg & Beck Co. B-L—Brown-Lipe Gear Co. Cot—Cotta Trans. Corp. Cov—Covert Gear Co. Det—A. J. Detlaft Co. D-G—Detroit Gear & Mach. Co. D-Disk. Ful—Fuller & Sons Mfg. Co. H-S—Merchant & Evans Co. J—Unit with Jackshaft. K—Cone. Lon—Long Mfg. Co.	Universal B.G.—Universal Machine Co. Blo—Blood Bros. Mach. Co. Har—Spicer Mfg. Co. M-E—Merchant & Evans Co. M. M.—Mechanics Machine Co. Pet—Cleveland Univ. Parts Co. Pie—Pick Mfg. Co. Spi—Spicer Mfg. Co. The—Thermoid Rubber Co. Thel—Almetal Univ. Joint Co. U-M—Universal Machine Co. U-P—Universal Products Co.	Front and Rear Axles ½—Semi-Floating. ¾—Three-Quarter Floating. B—Straight Bevel. Cla—Clark Equip. Co. Col—Columbia Axle Co. Con—Continental Axle Co. C—Chain. D—Dead. Eat—Eaton Axle Co. F—Floating. I—Internal Gear. P—Spur Gear. R—Double Reduction. S—Spiral Bevel. Sal—Salisbury Axle Co. She—Sheldon Axle & Spring Co. Shu—Shuler Axle Co., Inc. Std—Standard Parts Co. Tim—Timken Det. Axle Co. Tor—Eaton Axle & Spring Co. W—Worm. Wis—Wisconsin Parts Co.	Brake A—Rear Wheels only. B—Driveshaft and Rear Wheels C-6 Wheel Brakes. D—Jackshaft and Rear Wheels. E-4 Wheel Brakes. F-4 Wheel brakes with emergency on jackshaft. G-4 wheel brakes with emergency on driveshaft.	Springs Bea—Eaton Spring Corp. Bet—Betts Bros. Spring Co. Bur—Burton Auto Sp. Corp. Cha—Champion Auto Sp. Co. Del—D. Delany & Son. Det—Detroit Steel Prod. Co.	Har—Harvey Sp. & Forging Co. I. C.—Iron City Sp. Co. Mar—Maremont Mfg. Co. Mat—Mather Spring Co. Mer—E. R. Merrill Spring Co. Pen—Penn Sp. Works. Per—Eaton Bum. & Sp. Co. Row—Wm. & Harvey Rowland. Sav—New Era Sp. & Spec. Co. She—Sheldon Axle & Sp. Co. S. P.—Spring Perch Co. S. S.—Standard Steel Sp. Co. Tem—Temme Spring Corp. Tut—Tutill Sp. Co. U. S.—United States Sp. Co.	Steering Gear CAS—Columbus G & P. Co. D-G—Detroit Gear & Mach. Co. Dod—Dodge Bros. Co. Gem—Gemmer Mfg. Co. Han—Hannum Mfg. Co. Jac—Saginaw Products Co. Lav—Hannum Mfg. Co. Ros—Ross Gear & Tool Co. Woh—Wohlrab Gear Co.	Wheels Arc—Archibald Wheel Co. Bet—Bethlehem Steel Co. Bim—Bimel S. & A. Wheel Co. Bud—Budd Wheel Co. Cal—California Steel Wheel Corp. Cla—Clark Equip. Co. Day—Dayton Steel Found. Co. Dis—Motor Wheel Corp. Hay—Kelsey-Hayes Wheel Co. Hoo—Hoopes, Bro. & Darling-ton. Ind—Indestructible Wheel Co. Int—Mathews Steel Foundry Co. Jon—Phineas, Jones & Co. K-B—Kay Brunner Steel Co. Kel—Kelsey-Hayes Wheel Co. Mot—Motor Wheel Corp. M.M.—Mich. Malleable Iron Co. Sch—St. Marys W. & S. Co. Smi—Smith Wheel, Inc. STM—St. Marys W. & S. Co. Std—Standard Wheel Co. Van—Van Wheel Corp. Van Metal Wheel Div., Erie-Malleable Iron Co.
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a new development in spark plug construction

— of great importance to
Truck and Bus Operators


THE spark plug troubles in 9 out of 10 trucks and buses can be traced to one or both of two grave dangers—dangers to which all spark plugs are constantly exposed. One of these is electrode corrosion—the rapid burning off of electrodes. The other is fouling, caused by carbonizing of the insulator.

For years, spark plug engineers throughout the world have been striving to design a spark plug which would not be subject to these costly defects. But it has remained for the Engineering Laboratories of Robert Bosch to find the solution. They have found it in the new Robert Bosch principle of Pyro-Action.

As a result of this discovery, Robert Bosch has succeeded in developing a spark plug for truck and bus use, which in actual service gives results never before thought possible. For the correct type of Pyro-

Action plug for each engine gives these five definite benefits:

1. Pyro-Action gives you a "full strength" spark. Hence maximum efficiency from your motor.
2. Pyro-Action considerably lowers your spark plug cost-per-mile, because the new plug wears so much longer.
3. Pyro-Action banishes the danger of fouling or partial fouling, one of the common causes of spark plug troubles.
4. Pyro-Action protects the electrodes from burning off, resisting corrosion for many thousands of miles.
5. Pyro-Action prevents pre-ignition, in spite of the terrific heat which the plug is capable of absorbing.

Such performance will suggest to commercial car dealers a chance to make a real hit with their truck customers. For most truck owners have continual spark plug troubles and needless spark plug expense. You can be the first to show them a way out of their spark plug difficulties. It will give them new confidence in you. We would like to tell you the full story of Pyro-Action Spark Plugs . . . please mail the coupon below. 

You must be careful when buying spark plugs. Original-Bosch Pyro-Action plugs have black bodies and are marked with the name "Robert Bosch" and the trademark shown above.

The Original
Bosch

Pyro-
SPARK

ROBERT BOSCH MAGNETO CO., Inc.
3603F Queens Blvd., Long Island City, N. Y.

Please send complete information about the new Original-Bosch Pyro-Action Spark Plugs for trucks and buses.

Name

Address

Action
PLUGS

**Nothing *Finer*
Can Be Said of Any
Motor Vehicle Than,
It is -**



LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

Manufacturers Using Lycoming Motors Were Uniformly Most Successful Last Year

The Handsomest Truck in America

1-ton

\$1,095

Six Cylinder Engines, Four Wheel Brakes
Heavy Duty Truck Construction
Handsome Appearance

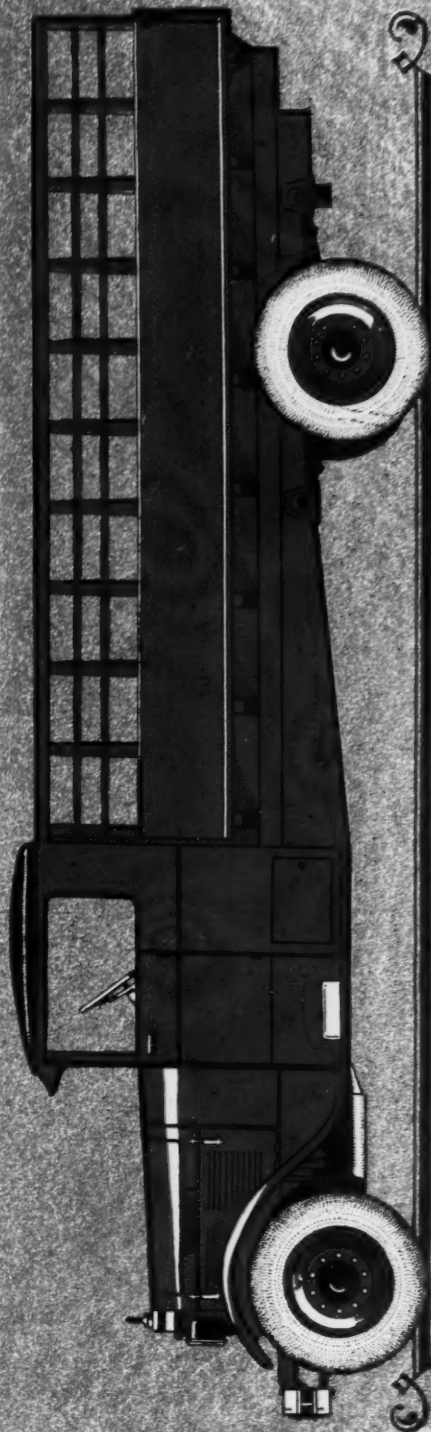
**Profits
Big**

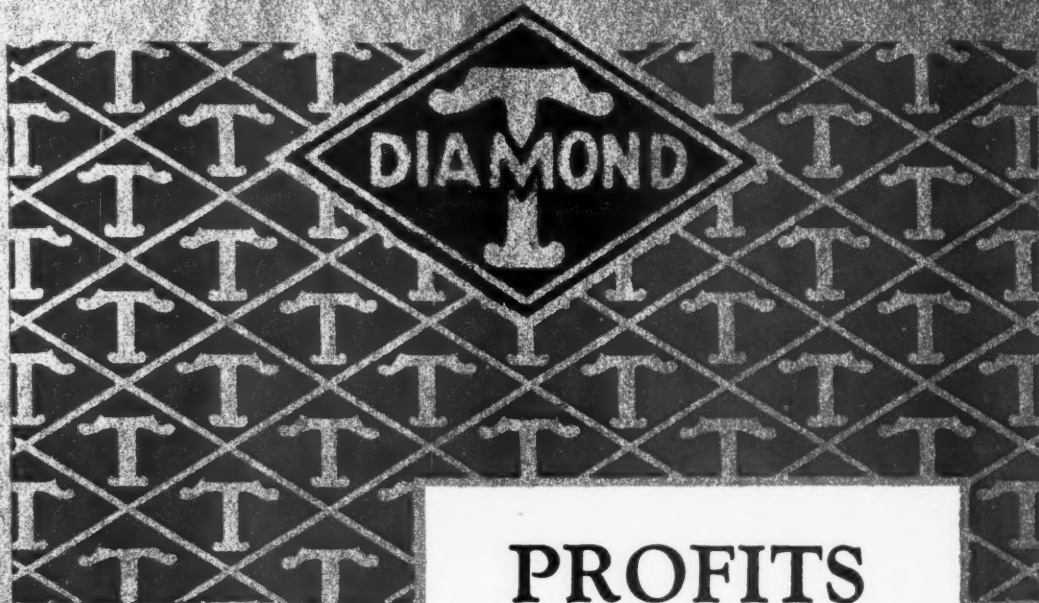
2-ton

\$1,650

Six Cylinder Engines, Four Wheel Brakes
Heavy Duty Truck Construction
Handsome Appearance

**Profits
Big**





PROFITS for DEALERS

Increasing business—new six-cylinder models—better fours—progress—success—all are creating more inquiries from truck operators. We need more dealers! Here's what the Diamond T dealer has to work with—

A truck second to none in Quality and Performance.

A complete line of fours and sixes, including tractors and a six-wheel special.

Competitive list prices.

Generous discounts.

A reasonable retail finance plan.

Personal selling helps.

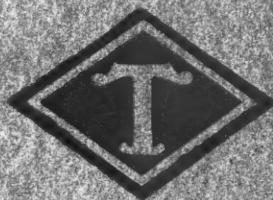
Carefully planned advertising to back his efforts.

Reasonably priced parts and prompt parts shipments from complete stocks.

The handsomest truck in America.

We'd like to tell you more. Will you write or wire (at our expense) today.

It is easier to sell Diamond T Trucks than to sell against them.



DIAMOND T MOTOR CAR CO.
TWENTY-SIXTH ST., CHICAGO, ILL.,



A section of our laboratories, showing apparatus for testing alloys

No other line of pistons can satisfy all your customers

WITH other pistons, you can meet part of the replacement requirements of your customers. But Permites are the only line that can take care of all their requirements—for trucks as well as cars! *More than three-fourths of all the automobiles made* are equipped, when they leave the factory, with aluminum-alloy pistons. When the time comes for replacements, aluminum-alloy pistons must be used. And with Permites, you can guarantee prompter service and more uniform, more satisfactory work.

Permite Pistons are nationally recognized as the leading aluminum-alloy line. Most of the important improvements in piston design and construction have been developed in our laboratories.

These laboratories are the largest and most completely

equipped of their kind in the world. Year after year, experts are constantly experimenting in them. Studying piston metals. Changing piston designs and methods of construction. Making discoveries that keep Permites in the lead!

The Permite aluminum-alloy, originated by our experts, offers definite advantages over other piston materials. It wears longer than cast-iron. It weighs only one-third as much. It throws off heat five times as fast. It cuts vibration—gives more power with less gas—makes motors run cooler and smoother!

You need only 50 Permite numbers to meet 90 per cent of your requirements. Write us today for prices and complete information! Aluminum Industries, Inc., Cincinnati, Ohio.

Permite Pistons are made in three types — the Spiral Slot type, the Straight Slot type, and the Strut type. The Straight Slot type is illustrated here. Makers of nearly 1,000,000 cars per year have adopted it as standard factory equipment.



San Francisco Warehouses:

ALUMINUM INDUSTRIES, Inc.
382 Golden Gate Avenue, San Francisco, Cal.

Atlanta Warehouses:

ALUMINUM INDUSTRIES, Inc.
212-213 Red Rock Bldg., Atlanta, Ga.

Detroit Office: ALUMINUM INDUSTRIES, Inc., Lexington Building, 2970 West Grand Boulevard, Detroit, Mich.

PERMITE PISTONS

Strength-Power-Speed

COMPARE your present service equipment with the tough jobs you are doing. How do they measure up? Is your equipment husky enough—and most important, has it *Speed as well as strength*?

The four Weaver products shown were each made particularly for the *big* jobs. But *not* with strength alone. Each has ease of handling—is quick, flexible. Workability is an important part of the design of each.

Tested in the Weaver Laboratory Garage—a practical proving ground which takes all “guess” out of service equipment—these four have showed their stuff and proved their service worth on the very biggest of automotive vehicles.

You never go wrong with Weaver Products, because every one of them is built for its job.

WEAVER MANUFACTURING CO.

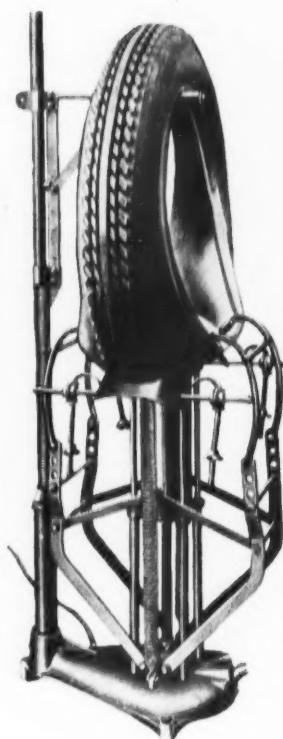
Springfield, Illinois, U. S. A.

WEAVER CANADIAN CO., Ltd.

Chatham, Ont.

WEAVER POWER RIM STRIPPER

Heaviest truck and bus pneumatics come off their 18 to 24 inch solid rims, disc or wire wheels in a jiffy. Power does it—with your compressed air. Chuck which grips the wheel moves inward. The six concentrically moving fingers shove the shoe out and off. Jobs which used to require hours now take minutes. Indispensable to shops servicing trucks or buses.



WEA EQUIP

POWER TIRE SPREADER

Affords a quicker, easier means of spreading pneumatic tires for inspection and repair, without danger of injury. Handles high pressure and balloon tires to 10½ inches. After hooks of Spreader arms are placed over tire beads, pressure on right foot pedal allows air to fill cylinder and force piston and arms down, spreading tire. Pressure on left pedal releases air and allows tire to resume natural position to inspect new portion. Tire held spread on removable buffing plate for repairing.

Equipment for every need: TOWING : MOTOR OVERHAUL : REAR AXLE

REPA

— for the BIG JOBS

VER MENT

HYDRAULIC PRESSES

Two sizes—80 tons, 42 in. wide; 50 tons, 36 in. wide. Especially adapted to truck and bus service. Speed and convenience are outstanding features. Precision work handled with accuracy, due to accurate control of ram and extreme rigidity of press. Heavy work can easily be raised on bolster and adjusted to exactly the desired height under ram by convenient crank and screw mechanism. Ample unobstructed space inside frame. Four adjustments in leverage by turning handle.

TRUCK AMBULANCE

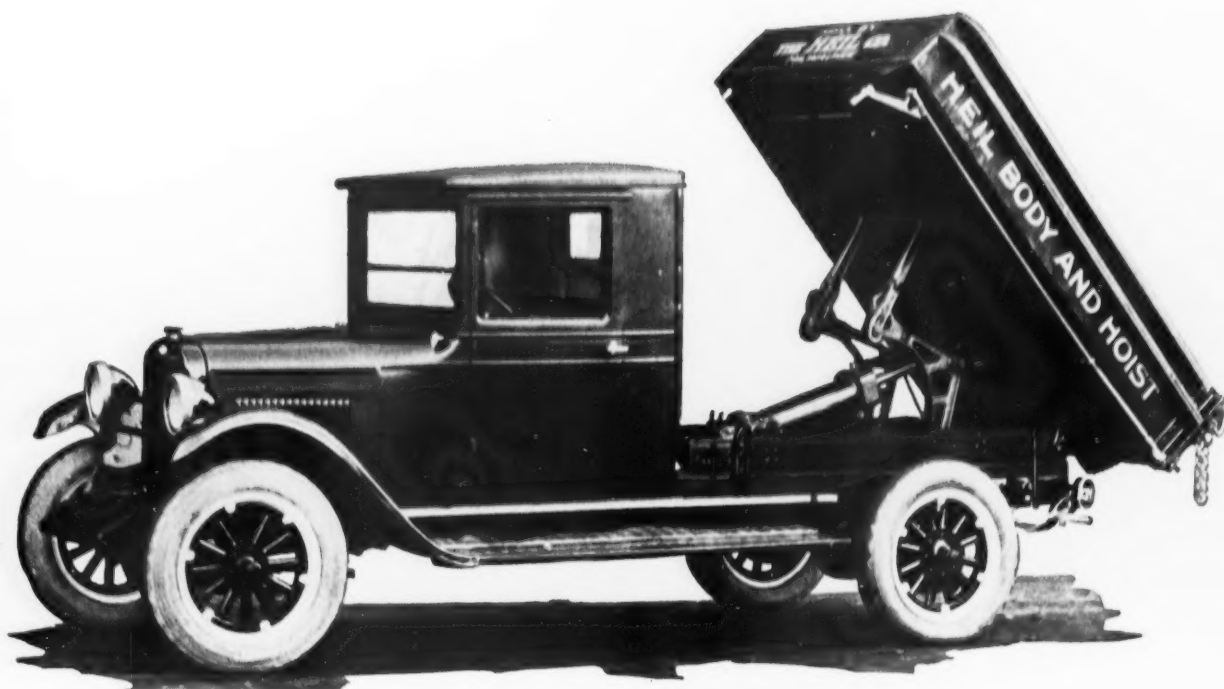
Extra heavy—for extra heavy service. Easily applied to front or rear axle. Double sets of ball bearings on each wheel. Pivoting yoke and adjustable width between saddles from 19 $\frac{1}{4}$ to 28 $\frac{3}{4}$ inches. Telescoping pole (7 to 13 feet) of husky tube steel. Heavy, solid rubber double tires. Handles heaviest buses, trucks, and fire apparatus with ease.



Which of these four would you like to know more about? Ask in a brief letter. We'll mail you the Facts.

AXLE REPAIRS : TIRE REPAIRS : LUBRICATION : BRAKES : WASHING

A New HEIL HYDRO HOIST for Light Duty Motor Trucks



H-2 Heil Hydro Hoist and Heil Body mounted on new Chevrolet truck.
Can be operated with Heil or Chevrolet P. T. O.

HERE'S the new light duty model H-2 Heil Hydro Hoist. It will dump any load that can be hauled on a light duty truck in from 5 to 9 seconds depending on the speed of the motor. Note 56° dumping angle, low mounting and tail gate ground clearance above chassis frame on installation pictured above. Any dealer can easily mount the H-2 Heil Hydro Hoist on the truck chassis by fastening four U-bolts. It is always completely assembled at the Heil factory and may be ordered attached to any one of several styles of Heil Bodies. Get the increased business to be obtained by selling your light duty trucks equipped with H-2 Heil Hydro Hoists to dump truck users in your territory.

1143-50 Montana Ave.
MILWAUKEE, WISCONSIN

THE HEIL CO.

Manufacturers of
BODIES, HOISTS, TANKS

CLIP THIS COUPON!

MAIL TODAY!

The HEIL Co., 1143-50 Montana Ave., Milwaukee, Wis.

We are interested in selling Heil Hoists and Bodies mounted on trucks of capacity for excavating road building general utility work. Please send free literature.

Print Name

Firm Name

Address

Remarks

for Economical Transportation



1927 Chevrolet Truck Sales Increased 80%

Chevrolet's 1927 truck sales showed an increase of 80% over 1926—making the Chevrolet Motor Company by far the world's largest builder of trucks!

This spectacular and emphatic public acceptance is a startling indication of the possibilities that exist for Chevrolet dealers in the commercial car field!

The large and consistent profits from this truck business alone would make the Chevrolet franchise unusually valuable. But truck profits are "plus" profits for Chevrolet dealers—because the volume of their passenger car sales is, year after year, among the largest in the entire automotive industry.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

Q U A L I T Y A T L O W C O S T

A new type of

See a demonstration of this new vehicle April 30 to May 6. Partial list of demonstration points given below—write us for complete list if your city is not included.

Tucson, Ariz.	Newark, N. J.
Oakland, Calif.	Providence, R. I.
Montreal, Que.	Albany, N. Y.
Toronto, Ont.	Birmingham, N. Y.
Winnipeg, Man.	Brooklyn, N. Y.
Denver, Colo.	Buffalo, N. Y.
Bridgeport, Conn.	Jameson, N. Y.
Hartford, Conn.	New York City, N. Y.
Hingham, N. D.	Olean, N. Y.
Grand Forks, N. D.	Rochester, N. Y.
Sioux Falls, S. D.	Watertown, N. Y.
Washington, D. C.	Yonkers, N. Y.
Chicago, Ill.	Canton, O.
Decatur, Ill.	Cincinnati, O.
Joliet, Ill.	Cleveland, O.
Peoria, Ill.	Columbus, O.
Springfield, Ill.	East Liverpool, O.
Rock Island, Ill.	Findlay, O.
Rockford, Illinois	London, O.
Anderson, Ind.	Marletta, O.
Brazil, Ind.	Youngstown, O.
Elkhart, Ind.	Tulsa, Okla.
Evansville, Ind.	Altos, Pa.
El Wayne, Ind.	Chambersburg, Pa.
Hammond, Ind.	Ette, Pa.
Indianapolis, Ind.	Johnstown, Pa.
Muncie, Ind.	Lancaster, Pa.
Terre Haute, Ind.	Philadelphia, Pa.
Vincennes, Ind.	Pittsburgh, Pa.
Westfield, Ind.	Reading, Pa.
Decatur, Ia.	Scranton, Pa.
Des Moines, Ia.	Wilkes Barre, Pa.
Topeka, Kan.	Providence, R. I.
Wichita, Kan.	Dallas, Tex.
Ashland, Ky.	Houston, Tex.
Louisville, Ky.	San Antonio, Tex.
Mayville, Ky.	Rutland, Vt.
New Orleans, La.	Charlottesville, Va.
Portland, Me.	Newport News, Va.
Baltimore, Md.	Norfolk, Va.
Boston, Mass.	Richmond, Va.
Springfield, Mass.	Seattle, Wash.
Detroit, Mich.	Tacoma, Wash.
Grand Rapids, Mich.	Bluefield, W. Va.
Kalamazoo, Mich.	Charleston, W. Va.
Wayne, Mich.	Clarksburg, W. Va.
Duluth, Minn.	Enterprise, W. Va.
Minneapolis, Minn.	Lagan, W. Va.
Jackson, Miss.	Morgantown, W. Va.
Hannibal, Mo.	Spencer, W. Va.
Kansas City, Mo.	Weston, W. Va.
St. Louis, Mo.	Wheeling, W. Va.
Lincoln, Neb.	Pond du Lac, Wis.
Omaha, Neb.	Milwaukee, Wis.
Concord, N. H.	Racine, Wis.
Newark, N. J.	

It is as revolutionary today as was the locomotive in 1824, the automobile in 1895, the tracklayer in 1908. Consider what this new transportation device accomplishes:

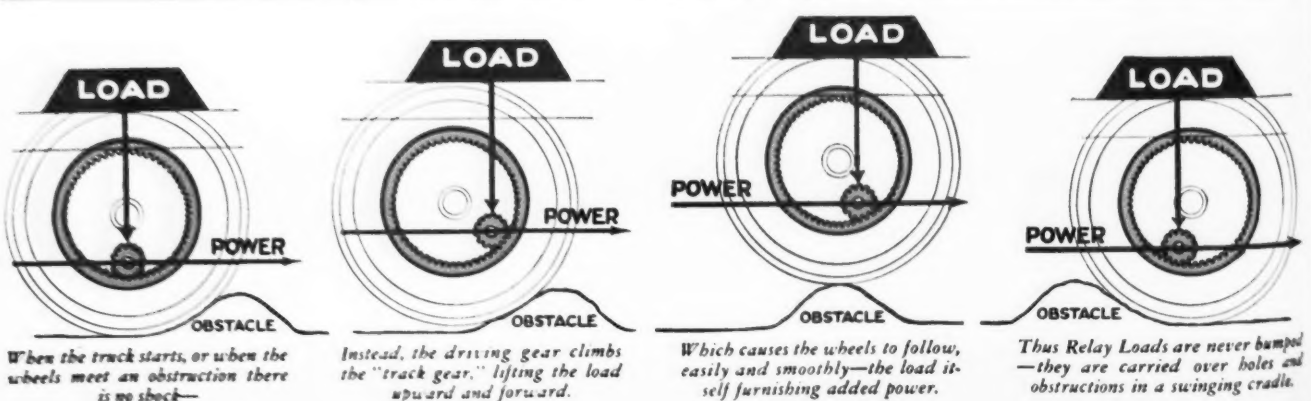
First—it combines the power of the tracklaying principle with the speed and smoothness of the automobile.

Second—the load is made to furnish power to pull out of difficulties—over obstructions.

Third—the load actually swings in a powerful steel cradle—safe from every road shock and blow.

Read every word of this advertisement.

It means a new era in transportation by truck.



powered vehicle



See a demonstration.
No truck has ever done
this—climbing a 45%
grade under capacity load
from a standing start—
stopping and starting up-
ward again.

*This
new vehicle to be
nationally demonstrated
April 30 to May 6*

Climb to the driver's seat and start a Relay Truck—fully loaded.

Let the clutch in fast—you cannot jerk the cargo. You're off with an easy swing to a new experience in transportation.

Drive over bumps. The load swings up and over easily and smoothly. Find a big obstruction—the kind that would stall other trucks. Slowly the load mounts on its smooth steel gears—up and forward in a steady swing—pulling the wheels after it. *Here is the first vehicle in all history to use the momentum of truck and load in surmounting the obstacle without bounce or jar.*

Drive through mud, over rocks, through sand. Find a steep hill. Get a 30% grade—40% grade. Up you go, easily—surely.

Here, you are ready to admit, is a dif-

ferent vehicle. It goes where only track layers would go before. It has greater smoothness and ease than the ordinary wheel drive. It is a combination of the wheel and tracklayer—greater than either.

In ruts and sand you can actually FEEL the load rise and apply its power to the forward motion of the rear wheels. The load aids the motor on every hard pull—bump, mud, sand or hill.

As for easy riding, nothing on wheels can approach the swinging steel cradle which cushions the Relay load. Drive as hard as you will, over rough roads and broken pavement, you cannot rack and pound a Relay Truck.

For three years Relay Trucks have been tested in hardest service—by contractors, by transportation companies, demonstrating these ten advantages of the remarkable new Relay Principle.

- 1—Greatly increased tractive power.
- 2—Easy negotiation of grades heretofore considered impassable.
- 3—Elimination of wheel slippage and spinning.
- 4—Doubled, sometimes trebled, tire mileage.
- 5—Diversion of road shocks from chassis and load.
- 6—Scientific cushioning of fragile loads.
- 7—Higher safe speeds.
- 8—Increased traveling radius and earning capacity.
- 9—Reduced operation and depreciation costs.
- 10—Easy riding and driving—like an automobile.

Relay is an entirely new advance in motor transportation. See a demonstration—don't miss it—there's one near you.

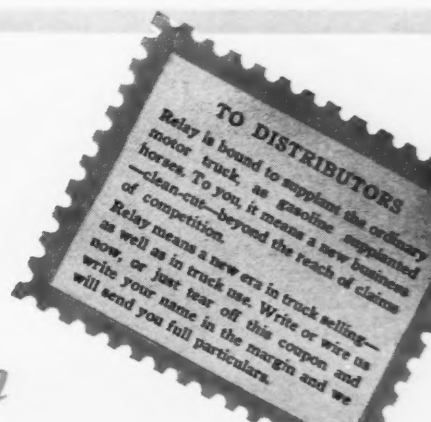
See the list on opposite page.

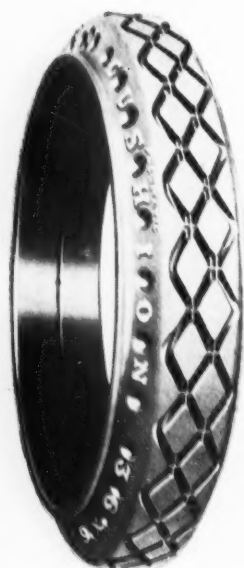
RELAY MOTORS CORPORATION, Lima, Ohio

Manufacturers of Relay, Commerce, Garford, and Service Trucks—Capacities 1 to 5 tons

RELAY MOTOR TRUCKS

with the "sur-mounting" action





Here is the right tire for your truck

Choose your truck tires to fit the kind of hauling you do.

You may need extra cushioning, or exceptional activity, or great tractive power and ruggedness for heavy service. Buy your tires to meet your needs.

Goodyear makes the right type of tire for every truck requirement.

Regular and Heavy Duty Solids, Cushions, and Pneumatic Truck Tires—a com-

plete line—every Goodyear Truck Tire has its special field of usefulness, efficiency, economy.

Whatever its special design or construction, every Goodyear Truck Tire has the quality that results in long, trouble-free, low-cost mileage. Developed and perfected by the pioneer in motor transport, Goodyear Truck Tires perform in a way that is worthy of "The Greatest Name in Rubber."

Goodyear Tires Cost Less In the End

GOODYEAR

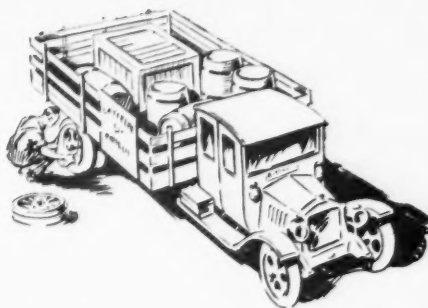
Copyright 1928, by The Goodyear Tire & Rubber Co., Inc.



It's **EASIER · SAFER · QUICKER** *for You to change over from solids to pneumatics with* **Dayton Pneumatic Steel Wheels ~**

Daytons Now Available for Change-Over

Now you can change-over from your solid tire type wheels to Dayton Single and Dual Pneumatic Steel Wheels.



Illustrated above, on the left, is the Dayton Single Pneumatic Steel Wheel, fully assembled. On the right is shown a complete assembly of the Improved Dayton Dual Pneumatic Steel Wheel. Daytons are made by wheel specialists and are approved by Underwriters' Laboratories and the world's leading truck makers.

Keep Your Trucks on the Job

Dayton Single and Dual Pneumatic Steel Wheels can be installed on your trucks overnight! Think what this means in modernizing your trucks and keeping them on the job without loss of working time. No matter what your present wheel equipment may be, you can change over *easier—safer—quicker* with Dayton Pneumatic Steel Wheels.

Why Truck Makers Approve Dayton Steel Wheels

Cast in one piece from electric furnace steel. Stronger, yet lighter than ordinary wheels.

Perfect alignment. Tires run parallel. No wobble. Proper spacing on duals eliminates friction of tire against tire.

Thorough ventilation possible only in spoke wheels. Neither brake drums nor tires overheat.

No rim slippage. Valves easily reached, tires quickly changed.

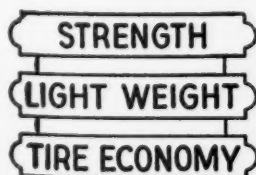
Greatest tire mileage. Tires do not break down prematurely from overheating, "flats" and chafing.

Profitable speed. Better traction in soft going. More pay loads. Longer truck life. Approved by Underwriters' Laboratories.

Write Us Today

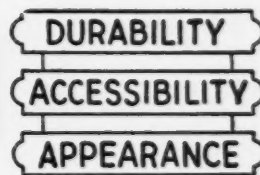
Dayton change-over service is complete. Your Tire dealer or your Rim and Wheel dealer will give you quick service when you change-over to Daytons. Write us freely giving us definite information regarding your exact requirements. We will be glad to send you a truck analysis sheet upon request.

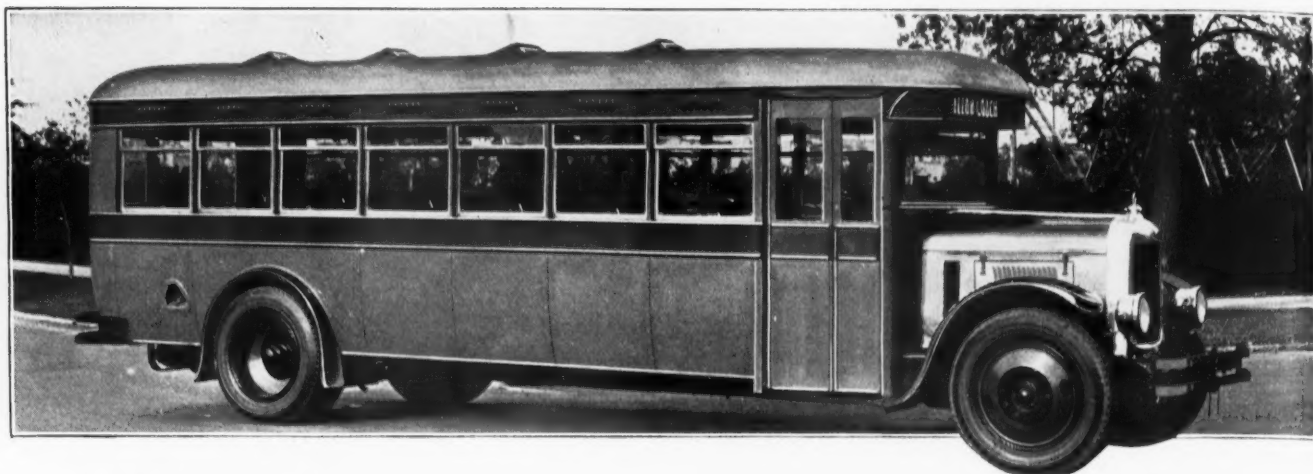
THE DAYTON STEEL FOUNDRY COMPANY
Dayton, Ohio



Dayton

The Mark of a Good Wheel





Another
“biggest bus order” specifies
TIMKEN
AXLES

331 chassis were recently ordered by the Public Service Railway Company of Newark, N. J., from Yellow Truck and Coach Manufacturing Company — a \$3,000,000 order; comparing with a similar order in 1925 for 333 busses, also equipped with Timken Axles.

These chassis are of single deck type, dual-drive gas-electric; equipped with Timken Worm-Drive Rear and Timken Front Axles.

This tremendous order is impressive proof of how experience unerringly points to worm-drive as the ideal final drive; for its simplicity, strength, long life, low operating cost.



THE TIMKEN-DETROIT AXLE CO., DETROIT, MICH.

~~Not this—
50c for Fords
75c for others~~

~~nor this—
60c for Fords
75c for others~~

but this .

50¢ for *all* cars
trucks and buses

SPLITDORF Spark Plugs are the only complete line of plugs offering the truck and bus operator standard quality at a price of fifty cents for any type. Standardize on these high-grade, low-priced plugs for replacements, and cut maintenance costs.

SPLITDORF ELECTRICAL COMPANY

Subsidiary of Splitdorf-Bethlehem Electrical Company

392 High Street, Newark, N. J.

SPLITDORF HALF-DOLLAR SPARK PLUGS

A special package of 4 plugs for the Ford engine at
\$1.75

A REAL MONEY MAKER

—St. Paul—

VERTICAL AND UNDERBODY
HYDRAULIC HOISTS



A Schacht Truck owned by the Morgan Sand and Gravel Co., Brooklyn, N. Y., equipped with St. Paul Underbody Hydraulic Hoist. Note swinging doors for batch loads.

Cut Down Overhead

That's why modern dumping equipment replaces hand labor. St. Paul Hoists have been installed on over 911 different types of trucks. There is one to fit your exact requirements. There is also near you a St. Paul distributor to "show" you. Then there are thousands of "Dump Truck Drivers on the Job," ask them. They know!



Two American La France trucks owned by the Frank L. Burns Coal Co. of New York City, equipped with St. Paul Heavy Duty Underbody Hydraulic Hoists.

Hydraulic Hoist Manufacturing Co.

Factories at St. Paul, Minnesota. Distributors and Service Stations Everywhere.

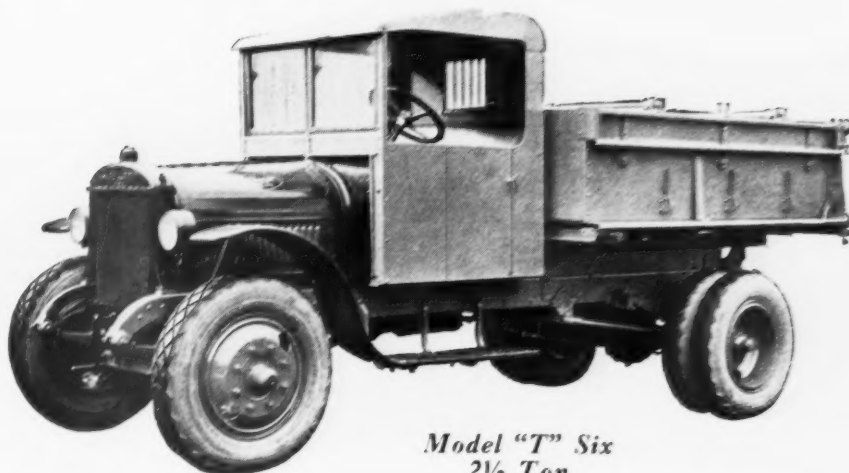
Write for Name and Address of One Nearest You

TWO NEW SCHACHTS

Meet Practically Every Dump Requirement

THE new SCHACHT Six, Model "T," a companion to the famous Schacht 2-yard "Road-maker," meets the demand for a 3-yard job that offers the same outstanding advantages of speed, power and traction. Is light enough to permit profitable operation throughout the year regardless of weight restrictions.

Powered with famous Waukesha Ricardo Head 6-cylinder engine; speed 35 miles per hour; 34 x 7 pneumatic tires, duals rear; 6 optional wheelbases.



*Model "T" Six
2 1/2 Ton*



*Series "R" Six
5 and 7 1/2 Ton*

THE new SCHACHT Series "R," capacities 5 and 7 1/2 tons, has famous Waukesha 6-Cylinder KU motor, bore and stroke 4 1/4 x 4 3/4, Brown-Lipe 7-speed transmission, and BK Booster brake. Affords unusual power and smoothness of operation for severest dump work. Six optional wheelbases.

Complete information on request

THE LeBLOND-SCHACHT TRUCK CO.

Pioneers in Motor Transportation

Factories and General Offices, Cincinnati, Ohio

Branches:

Long Island City, N. Y.; Newark, N. J.; Little Falls, N. J.;
Providence, R. I.; Columbus, Dayton, Toledo, Ohio; Louisville, Ky.

SCHACHT TRUCKS

Performance

tops all selling arguments

A BUSINESS-PAPER investigation recently proved that the majority of truck sales are made on performance. Selling arguments may carry so much, it showed, but it always takes *performance* to clinch the sale.

*These
are advantages
of the Republic
Sales Franchise:*

A Complete Line
Performance that
Sells
Policy of Fairness
A Leading Name
Factory Co-operation
Steady Profits

As a Republic dealer, you have half the battle won before you start. You have selling arguments—you can talk all day on the many exclusive features that make for Republic long-life, dependability, super-power and economy. But you have more! A tangible sales-talk—in the performance of every model of the complete Republic line.

Republic performance attracts attention on the road—for speed, power, and load-carrying ability. It *wins* attention on the cost-sheets. You can show convincing proof that Republics have consistent *high performance* at consistent *low cost* per ton mile. On this good record, Republics sell themselves.

*Write or wire for information on
the unusually attractive features
of the Republic Sales Franchise*

REPUBLIC MOTOR TRUCK CO., Inc., Alma, Mich.

REPUBLIC



LONGER LIFE AND LESS VIBRATION MEAN PROFIT TO THE OPERATOR AND COMFORT TO THE PASSENGER

The high heat conductivity and
durability of Lynite, strong
aluminum alloy Pistons
and Connecting Rods
prolong the life of the
motor. Their lighter
weight reduces
v i b r a t i o n .

LYNITE
PISTONS AND RODS

LYNITE PERFORMANCE

*Greater speed—more pulling power.
Several seconds quicker acceleration.
Less wear on cylinders and bearings.*

*Vibration reduced to a minimum.
Less weight—greater fuel economy.
Cooler motor—with less carbon.*

Strong Aluminum Alloys made of Alcoa Aluminum

ALUMINUM COMPANY OF AMERICA
PITTSBURGH, PA.

ALUMINUM • IN • EVERY COMMERCIAL • FORM

1 Sale – 4 Profits

Consider competition—overhead—seasonal slumps—prices—and THEN THIS FACT:

Everything considered there's more "clean money" in one average truck sale than in the sale of four average passenger cars.

Doubt it if you will—but *think*: No style changes, a bigger unit of sale, cleaner credit risks, the fleet business, the stable market (for merchandise *must* be moved)—

Then, no seasonal slump. Haulage knows no season, and truck sales come just the same in "off seasons" as in the spring. That's when you'll appreciate truck money—just when you need it most. Figure your clear profit at the end of the year, consider the costs charged in the long run against sales—and you'll check with that statement—"1 sale—4 profits".

Federal's franchise is as practical for passenger car dealers as it is for exclusive truck dealers. Whichever you are—write.

FEDERAL MOTOR TRUCK CO.
5786 Federal Ave. Detroit, Mich.

FORE^{and}AFT
INSIDE
and OUT
ALL TRUCK



FEDERAL

ALL SIZES TRUCKS FOURS & SIXES (158)

At last!

an Auxilliary Spring
that increases loading
capacity and cuts costs.

TRAINOR OVERLOAD SPRING

EVERY user of a light truck overloads it at times—some do it most of the time. Result—too much weight on the springs—and they break.

The Trainor OVERLOAD Spring permits you to carry an EXTRA TON without any danger of spring breakage. It takes up all the excess weight—relieves the truck springs of this strain—makes one trip do the work of two.

A New Source of Profit

Here is a new source of profit for you. Almost every light truck owner in your community is a prospect and you'll find him easily sold when you once explain the merits of this remarkable spring.

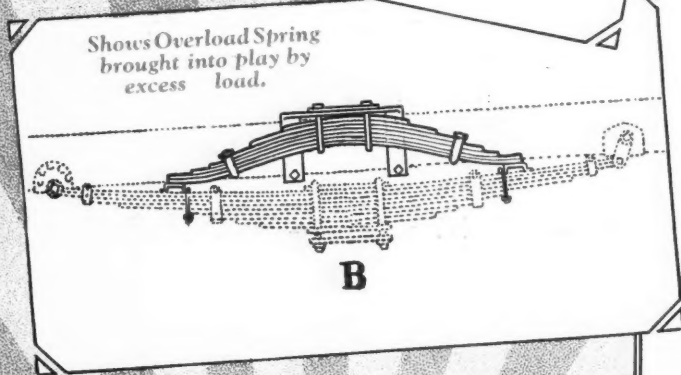
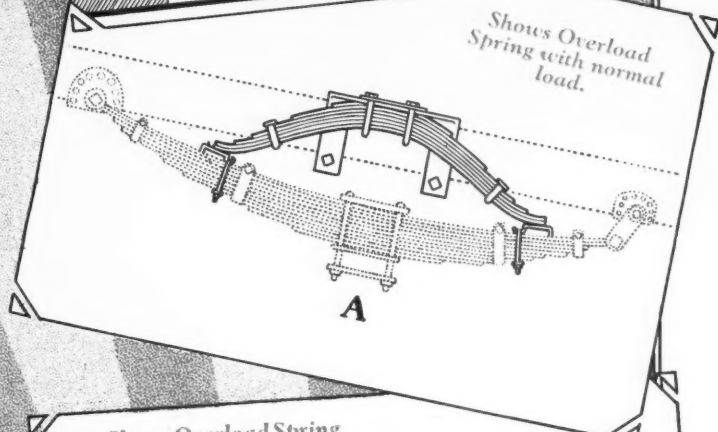
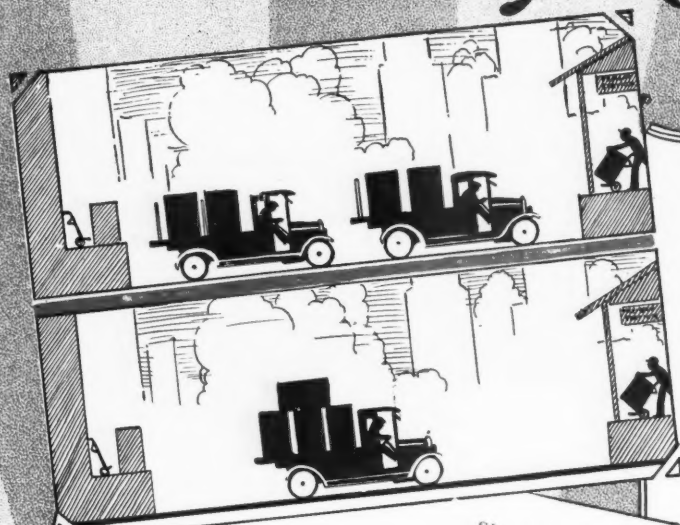
Here
It Is!
EASY to INSTALL!
NO HOLES to DRILL!
CLAMPS ONTO
FRAME AND WILL
NOT COME OFF!

Fits the Following Trucks

CHEVROLET
1 ton—Mod. RX 1925
1 ton—Mod. X 1926-27-28
GRAHAM BROS.
1 1/2 ton—1924-26-27-28
GRAHAM G-BOY
1 ton—1926-27-28
FEDERAL-KNIGHT
1 ton—1926-27-28
1 1/2 ton—S25 1924-26-27
1 1/2 ton—S23 1926-27-28
G. M. C.
Mod. T20—1 ton 1927-28
Mod. T20C—1 1/2 ton 1927-
1928
Mod. T40—2 ton 1927-28
STEWART
2-3 ton 1927-.

TRAINOR NATIONAL SPRING Co. Newcastle, Ind.

An accessory that every light truck needs!



THERE'S an enormous market for Trainor OVERLOAD Springs. Just think of the number of light trucks in your own community. Think of the number that come to you for service. Think what an opportunity you have to sell them an accessory that each one needs and wants. AND THERE'S A REAL MARGIN IN IT FOR YOU.

Make One Trip Instead of Two

Truck owners can now safely load an extra ton without danger of spring breakage—make one trip do instead of two—cut hauling costs—increase profits—with Trainor OVERLOAD Springs.

Here's How They Work

The illustrations show clearly how Trainor OVERLOAD Springs function. "A" shows the truck spring under a light load. The OVERLOAD Spring does not come into play under these conditions. "B" shows the spring when the truck is overloaded. Excess weight brings the OVERLOAD Spring into play taking up the added tonnage and eliminating any strain on the truck springs.

A Shock Absorber, Also

The Trainor OVERLOAD Spring is automatically a shock absorber, taking up the jolts and jars—protecting the body as well as the load—adding years of life to the truck.

Prevents Sidesway

The Trainor OVERLOAD Spring prevents sidesway when driving on a crown road and causes "onesided" loads to ride evenly, thus lessening the danger of tipping over.

No Holes To Drill

Easy to install—no holes to drill—no alterations of frame necessary—only one wrench needed, and an ordinary mechanic can do the job in less than an hour. Absolutely nothing to get out of order.

Ask Your Jobber

Trainor OVERLOAD Springs are handled by reliable Jobbers and Spring Service Stations. Write to yours today for complete information, or if you prefer, write to us.

Backed by 37 years of practical Spring experience

**TRAINOR
OVERLOAD
SPRING**

Jobbers

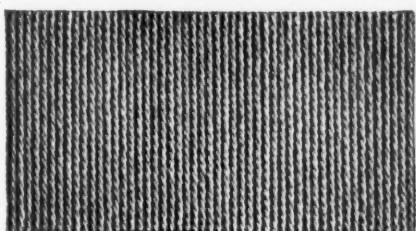
There is still valuable territory open on this new accessory and you will find our proposition interesting. Write Today!

TRAINOR NATIONAL SPRING CO. Newcastle, Ind.

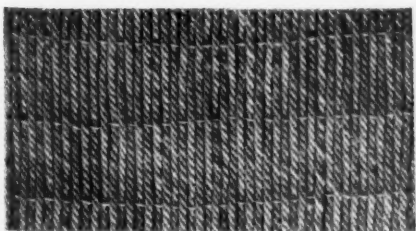


Keeping Tire Costs at Low Levels

Original and exclusive features of construction enable Fisk Transportation Cords to set a new standard for heavy duty pneumatic performance and economy



This is the famous Fisk "Fillerless" Cord used in all Fisk Tires. Note the smooth, regular lay of the cords.



This shows the old style Cord used in most tires today. Note the irregularity due to filler threads.

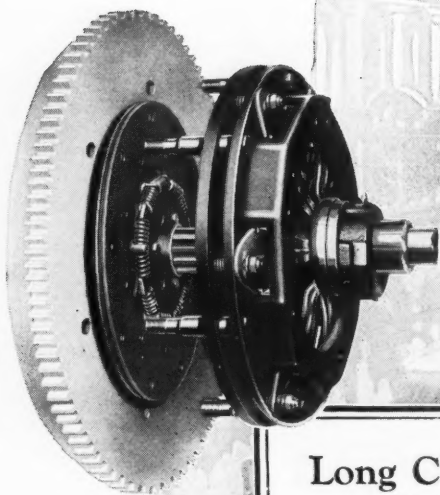
By the "Fillerless" Cord process, a Fisk patent, all cords are laid straight and parallel under equal tension, and each cord is sheathed in live rubber. Elimination of cross strands and "Filler" threads reduces internal friction and cord breakage.



THE FISK TIRE CO., INC., Chicopee Falls, Mass.

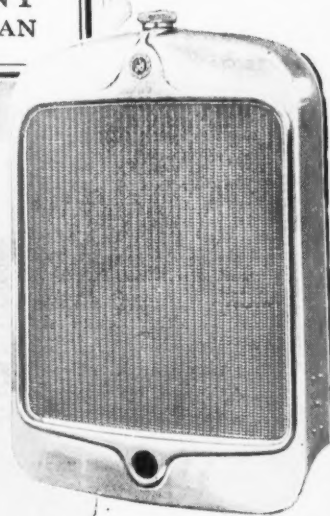
FISK

ENDURANCE



Long Clutches and Radiators are built to serve beyond the expected limit of performance. Our engineers are available and are glad to co-operate.

LONG MANUFACTURING COMPANY
DETROIT MICHIGAN



LONG

LONG PRODUCTS—AUTOMOTIVE CLUTCHES AND RADIATORS

Hercules

O.K.

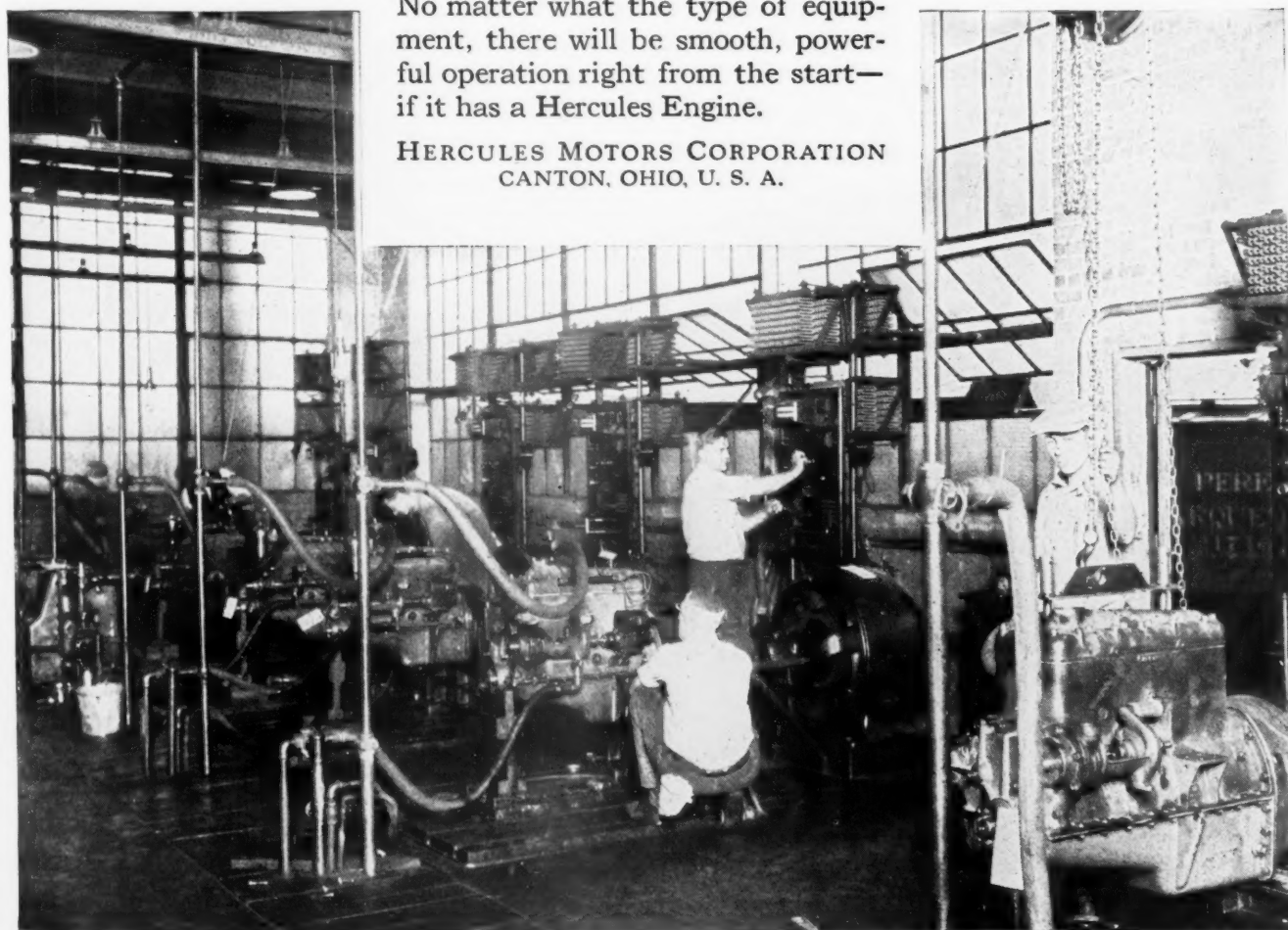
It is a badge of merit—this Hercules O.K. It is given only to an engine that has shown the exceptional performance required in the Hercules tests.

Every Hercules Engine gets these tests. The dynamometer unfailingly records the individual ability of each Engine. So, the engine with the Hercules O.K. is ready to do a full day's work at full capacity. It will keep up this profitable work for long periods with only ordinary care.

Farmers, road builders, general contractors and commercial transportation men know the long-lived economy of Hercules Engines.

No matter what the type of equipment, there will be smooth, powerful operation right from the start—if it has a Hercules Engine.

HERCULES MOTORS CORPORATION
CANTON, OHIO, U. S. A.



Start a new friend on faith

Switch to Dixon's 677

TRY Dixon's No. 677. We suggest you do what you always do under such circumstances — Start a new friend on faith.

Then make up your mind. That's fair!

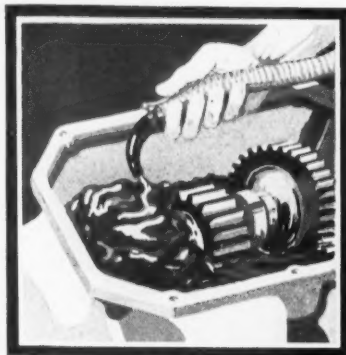
Dixon's No. 677 graphited lubricant doubly films metal parts. It is two good lubricants in one. Selected, flake graphite and grease. Both provide friction fighting films of lubrication. Yet the graphite film is so thin it is almost invisible, even under the microscope.

You offer double insurance against trouble at one price. Double protection for metal parts against friction, premature wear, costly breakdown and repairs.

Endorsed by bearing manufacturers

Yet you get this double protection in graphite grease only as Dixon makes it.

It is a graphite grease bearing manufacturers will endorse. Simply because of the



selected flake graphite used. Dixon's selected flake is the only graphite produced that has the peculiar thinness and flatness of flake, a toughness and elasticity that will make it build up and not adhere to itself, ball up or pack.

Double protection

This Dixon's No. 677 grease clings to gears. Neither heat nor cold changes its consistency. Gears doubly filmed, slide easily . . . quietly.

Try it. Give it the hardest tests. Clean out and fill

up the gear box and differential of your hardest used truck or bus that comes in your shop with Dixon's 677.

Have your own proof

Use this grease in high pressure lubricating guns for all chassis parts, as well. Thousands say there is nothing better.

We leave it to you to call it the best, and most profitable lubricant you've ever supplied your customers.

JOSEPH DIXON CRUCIBLE CO.,
Jersey City, N. J. Established 1827.



DIXON'S

Graphited
Lubricant **677**

TWO GOOD LUBRICANTS IN ONE

*Clean out and
fill up gear box
and differential
with Dixon's 677*

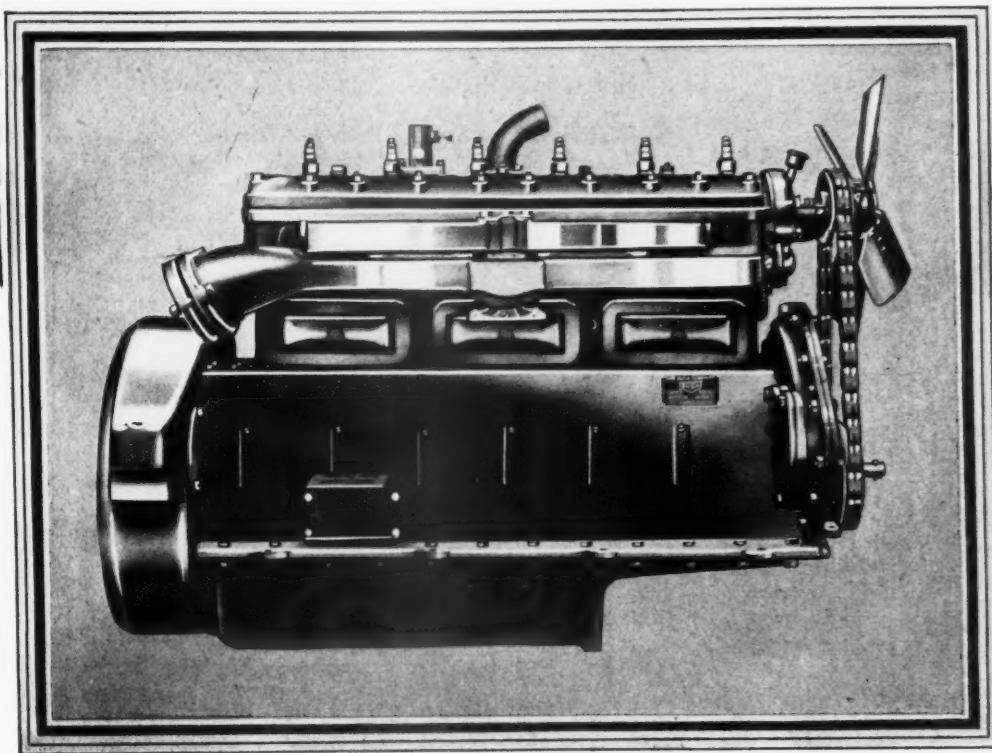
You Want PERFORMANCE

JUST a 6-cylinder engine will not fill the bill. You want a 6 that will give you honest-to-goodness *performance*—day in and day out—under all conditions of road and weather.

That's what you get in BUDA.

BUDA Sixes have been in quantity production for years. They have *made good*.

There is a BUDA *Heavy Duty* 6 for every size truck and bus—specially designed to pull heavy loads—for long distances—at lawful speeds.

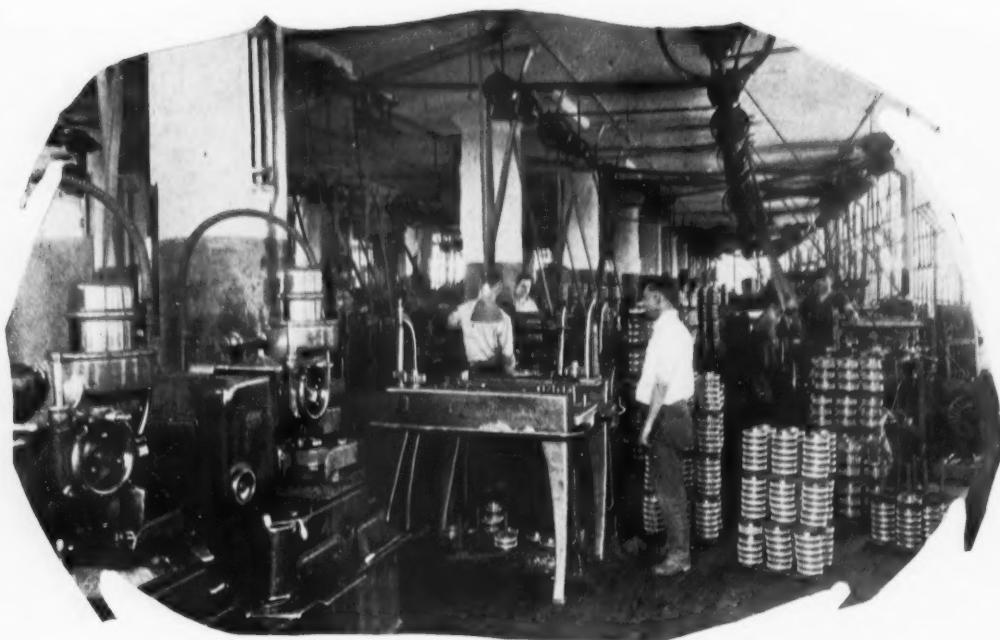


THE BUDA COMPANY
HARVEY (*Chicago Suburb*) ILLINOIS

Members of Motor Truck



Industries, Inc., of America



The Gear Department

This is perhaps the most important department in the entire Fuller Plant. The very latest and best of high-speed accurate gear cutting machinery is used. Tooth forms obtained are constantly checked for accuracy, by means of a projectograph, which indicates the slightest departure from desired standards. Gears are burnished before being case hardened, and must pass many rigid inspections before finding their way into the heat-treating department.

All of which, of course, is for the constant protection of Fuller users on the road.

Fuller & Sons Manufacturing Company

Kalamazoo

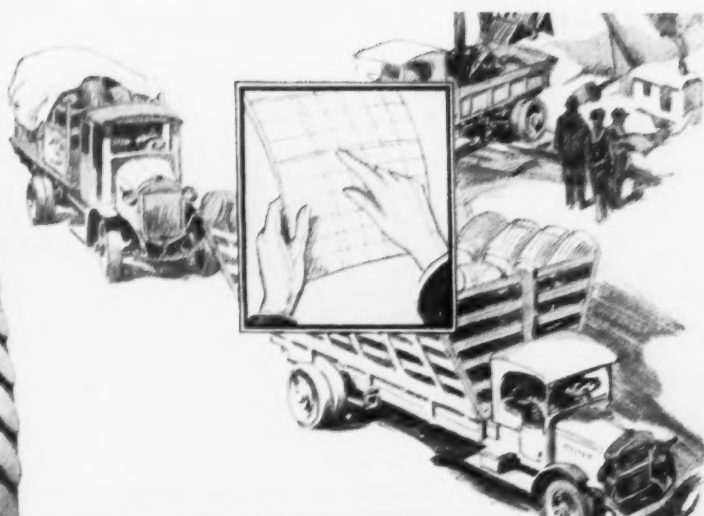
Michigan

Members of Motor Truck Industries

FULLER TRANSMISSIONS

TRANSMISSION BUILDERS FOR 25 YEARS





The mileage cost *isn't all in the price list*

THERE is always some connection between the price of a tire and the cost of using it. And Goodrich Heavy Duty Silvertown prices are "in line."

But that is only part of the story.

An idle truck starts the overhead climbing. When a truck stops to change a

tire—the costs go right on. It's more than the driver's time and temper—it's the whole investment you're paying for.

Goodrich Heavy Duty Silvertowns have won their place on some of the biggest fleets in the country by their ability to *keep going*. It's their remarkable freedom from trouble—it's their uniformly long mileage—that keep down tire costs.

THE B. F. GOODRICH RUBBER COMPANY, Est. 1870
Akron, O. In Canada: Canadian Goodrich Company, Kitchener, Ont.

Goodrich

HEAVY DUTY

Silvertowns

HIGH PRESSURE OR BALLOON

Use the Operation & Maintenance Standard Cost System

It will enable you to get accurate information concerning the operation of your trucks.

It will give you a thorough check-up on your drivers and show who among them are careless or inefficient.

It will show whether or not you are getting the service from your trucks which you have a right to expect.

It will help you ascertain just how profitable is your truck installation.

There is nothing complicated or difficult about the Operation & Maintenance Standard Cost System. On the contrary, it is very simple. There are but two forms to be used—a driver's daily route card and a monthly summary sheet. The information recorded on them tells you what you need to know about the operation of your trucks.

The complete system
consists of

500 Driver's Cards
60 Monthly Summary Sheets
1 Complete Instruction Book
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Chestnut and 56th Streets

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TRY IT
AND SEE



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Johnson Products: Piston Pin, Tie Rod, Spring Eye, Steering Knuckle, Spring Shackle, Generator, Starting Motor, Special Miscellaneous Bushings and Parts, Cored and Solid Bar Bronze.

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TRUCKS—VANS—COACHES**

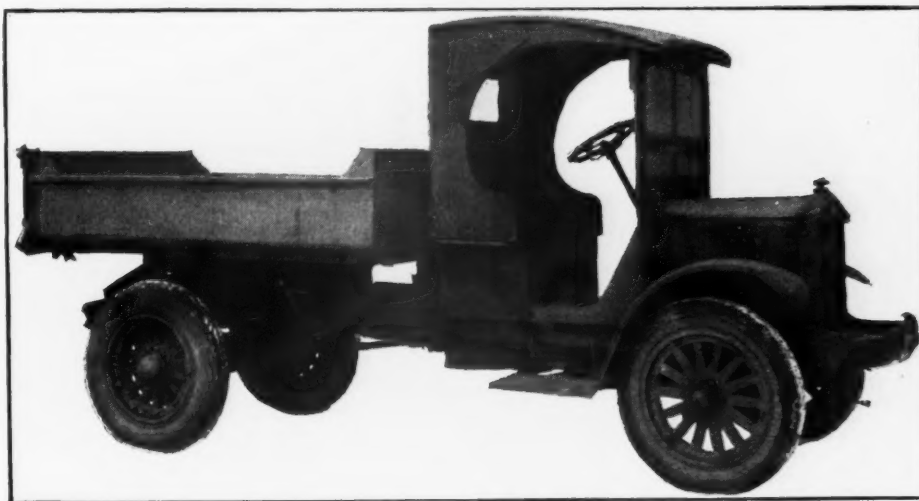
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Executive Offices: Lima, Ohio

Factory: Delphos, Ohio

Member of Motor Truck Industries, Inc., of America

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Free from troubles, repairs and breakages

Easy Cradle-Like Dumping Action

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Galion, Ohio

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It is up to the truck; it is up to the driver, to show mileage-at-a-profit on a "VEEDER."

REGULAR MODEL (list)...\$20.00
For "MODEL A" FORD CARS
and TRUCKS\$17.00

Informative circulars on request

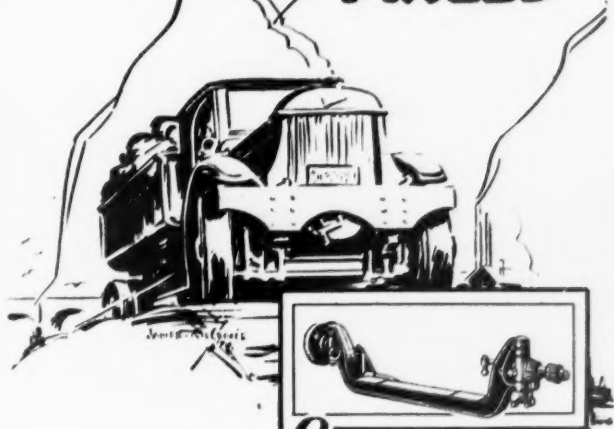
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for **TRUCKS**
Tractors and Trailers

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Satisfaction

SELLING satisfaction is as much a part of our job as selling axles.

If you are satisfied with your present supplier stay with him—if not—then you had better try us.

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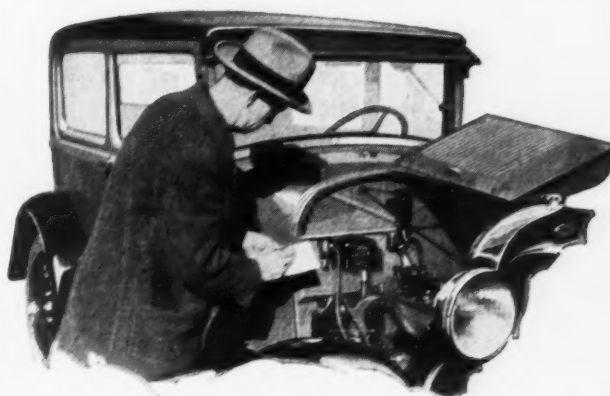
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and Know.. what your vehicles are doing



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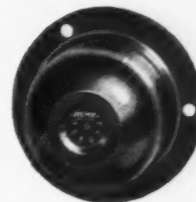
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Learn all the details about OHMER Odometers, Hub-Odometers, and Recordographs. Read our fully descriptive literature. If you desire suggestions on cost accounting in connection with vehicle operation, let us give you the benefit of the ideas which we have accumulated in our 30 years' experience. Write or wire today.



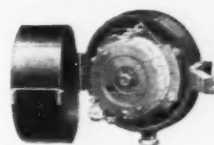
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Odometer**

May be placed under hood, on instrument board, on frame, or wherever wanted. Transmission driven. Large figures snap into full position.



**OHMER
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Replaces hub cap of any car or truck. Figures always right side up.



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Recordograph**

Makes continuous, indelible record of distance, speed, time, stops.

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MILEAGE RECORDING DEVICES

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You'll be assured of superior, satisfying performance, with a distinctive, sturdy 6-cylinder Selden, whether your loads weigh 1, 2, 3, 4, 5 or 7 tons.

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Rochester, N. Y.

Selden Motor Trucks



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"What's that little thing up there for?"
"That," said the truck salesman, "is a Servis Recorder. It gives a printed chart that tells you every move your truck makes."

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"Oh, the driver is only a small part of the story. There are all sorts of causes for truck idleness. This Recorder shows *all* delays from morning till night, and if the truck is taken out during the night, it shows that too."

"I see. Sort of takes the curse off of owning trucks, doesn't it?"

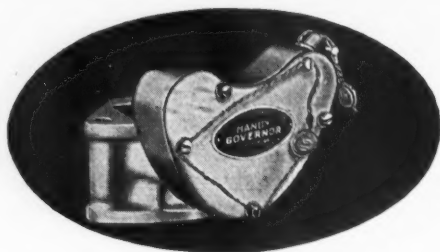
"Yes; now you can supervise your truck right from the top of your desk. There are thousands of truck owners that wouldn't think of operating a truck any more without one."

"Say, that little thing makes me feel more like buying a truck than anything I have seen in a long time."

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School Boards everywhere specify Handy Governors to control the speed of the buses that carry children—the most precious load in the world.

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Gotfredson sales for 1927 have surpassed any previous year in the history of the manufacturers—an enviable record for any truck builder during the year 1927.

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Through years of unexcelled service and dependability, Spicer Propeller Shafts are recognized by a majority of the passenger car, bus and truck manufacturers throughout the world as *the* propeller shaft for the motor vehicle they manufacture.

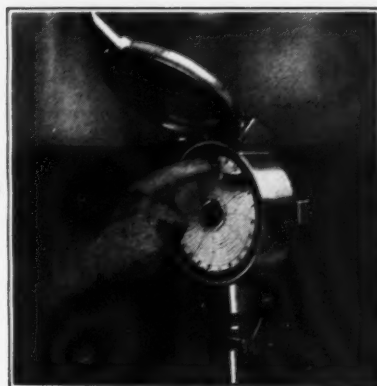
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South Plainfield, N. J.

Spicer

Propeller Shafts

DO YOU SEE THE POINT?

ACCURATE
OPERATING



DAILY
RECORD



CHECK
THE
COST

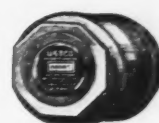
REDUCE
THE
OVERHEAD
EXPENSE

THE
USTECOGRAPH



ODOMETER

The Ustecodometer supplies a clearer and more convenient mileage record. Attached in any location. On dash, chassis, inside cab or under hood. Trouble free.



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HUBODOMETER

TEST OUT ONE OF THESE
AUTOMATIC RECORDING
INSTRUMENTS

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for Time, Distance and Fare

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A Model for Every
Trucking Purpose

FOUR CYLINDER
1 to 6 Tons
SIX CYLINDER
1, 2 and 3 Tons

Dealers:

We can offer you an unusual sales plan
which assures you increased profits

Write for details today.

National Motors Mfg. Co.

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Dual pneumatic wheels
for changeovers and re-
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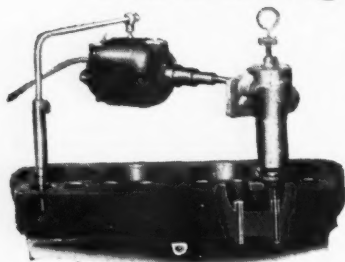
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prices and literature.

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Van Metal Wheel Division

ERIE, PA.

Improved Tools for Grinding Valve Seats and Honing Cylinders



Hall Valve Seat Grinder

Complete with Diamond
Dresser \$97.50

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Price complete \$39.75

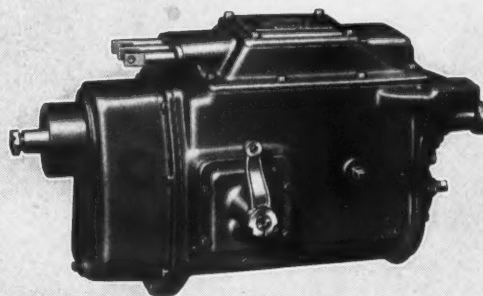
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or write factory for booklet,
"The Hall Way to Profit."

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Superior Truck Performance is afforded by Brown-Lipe Seven-Speed Transmission



Standard Equipment on
Many Leading Trucks



Brown-Lipe Gear Co.
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**"Power is an Operating Factor
Built into
RUGGLES TRUCKS"**

Solid strength and an abundant flow of power equal to every road requirement — the same characteristics which have made Ruggles Trucks an outstanding commercial success — are found in every Ruggles Truck.

A complete line of four and six cylinder models.

We offer dealers a liberal selling plan. Write for details.

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ROLLED STEEL TRUCK WHEELS



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General Offices: Bethlehem, Pa.

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A Good Cab Helps the Chassis Stay Sold

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The remarkable and special features of Weatherproof construction will actively help build good-will for your unit. Send for complete specifications—and prices.

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Passenger and
Commercial
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Write for
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The truck or bus equipped with B.C.A. Ball Bearings has an assurance of reduced friction and repairs. Many of the outstanding commercial cars have used B. C. A. Ball Bearings for years.

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Bodies that can be Serviced like the Chassis!

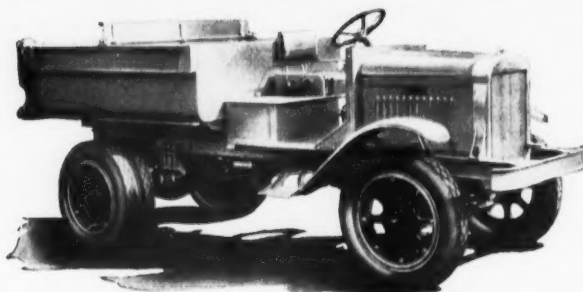
We have a proposition to offer truck dealers and body distributors that opens up a large field for more profit and better service. The Hoover Uni-Built Stel-Kote Line of Bodies permits you to replace the worn-out or damaged section, instead of trying to patch it up. You're sure to be interested in our proposition—ask us to send you further information!

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UNI-BUILT

HOOVER BODY CO.
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Designed for Roadbuilding

There is a Hug Roadbuilder Model for every roadbuilding transportation need. Furnished in 2, 3, 3½, and 4 yard bodies.

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Hug Roadbuilder Trucks are built for the road job. Every feature is designed from the roadbuilding point-of-view. Greater earning power is the objective in Hug design. Hug earning power is based on more than one or two years of efficient service. Many Hug Fleets are operating for the fifth successive season, and pay a dependable profit on each working day.

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Only Highway Can Do This—

Four-Wheel-Circle Steer-Reversible

2 TON — \$ 550
4 TON — \$ 750
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because Highway Trailers are manufactured trailers—and because a manufactured product bears but one profit and one overhead charge. Write for bulletins.

**HIGHWAY
TRAILER CO.**

EDGERTON

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The World's Largest Trailer Plant

ACME United

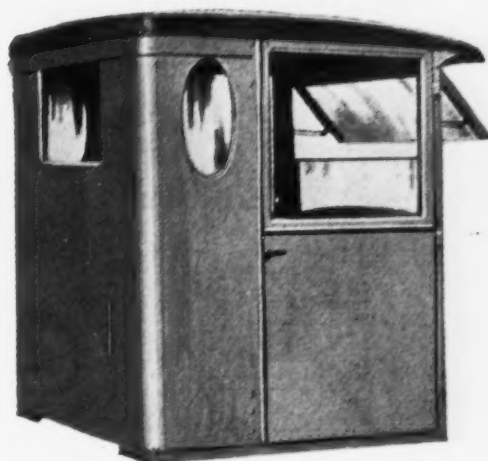
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Engineering, Manufacturing
Sales and Service Have
Bettered Both

PRODUCTS

A Model of Either Make
Awaits Your Inquiry from
 $\frac{3}{4}$ Ton to $6\frac{1}{4}$ Tons With
Either 4- or 6-Cylinder
Motor

Acme Motor Truck Co.
Cadillac, Michigan



DeLuxe Coupe

Built for today's rapid and distant transportation needs: Vision, Comfort, Strength, and an appealing design. Made to fit any standard chassis.

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**Distributors—Dependable Profits
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Four and Six-Cylinder Trucks**

**A
SIZE
FOR
EVERY
NEED**

Especially designed to carry heavy loads long distances and at lawful speeds. An experience devoted to building commercial trucks exclusively.



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PLAN OF LIBERAL FACTORY
CO-OPERATION?

GRAMM-BERNSTEIN CORPORATION
East Wayne and Scott Streets
LIMA, OHIO

DIVCO

GAS DRIVEN VEHICLES—
Low Cost, Multiple Stop Delivery

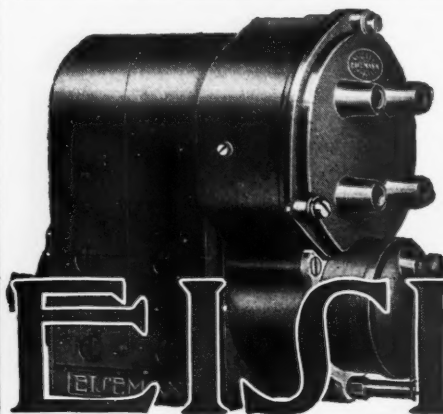


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Dairies, Bakeries, etc., are discarding horse equipment for smaller fleets of DIVCOS because of startling savings in delivery costs. This means bigger sales—fleet business—no "trade-ins." DIVCO demonstrates spectacularly. New dealer plan that puts over "fleet idea" and SELLS! Some territories open. Get this profitable franchise! Write for details.

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The Leading Magneto ~ for Motor Trucks and Buses



Widely used, and recognized as the standard of the industry. Backed with unrivalled performance record.
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EISEMANN

Makes Money 5 Ways

The Operation & Maintenance Standard Cost System makes money for you by saving it.

**Operation & Maintenance
Standard Cost System**

\$950 Postpaid

Write for Details

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2. Saves your time by showing you all the costs without digging for them.
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5. Saves the truck's time by keeping it fit to run.

Chilton Class Journal Company

Chestnut and 56th Sts., Philadelphia

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MACHINE COMPANY



ALLEGAN, MICH.

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Member of Motor Truck Industries, Inc., America



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Manufacturers of Scientifically Heat Treated Automobile Springs

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6 SIXES 6 6 SIXES

There's more money
in selling **SIXES** than
Wishing You Did

*Atterbury has a complete line
of Sixes for 1928*

ATTERBURY MOTOR CAR COMPANY
Elmwood Avenue at Hertel
BUFFALO, N. Y. Factory Service

NEW * * *

NEW * * *

NEW * * *

DITWILER has a new Underbody Mechanical Power-Driven Dump Body, built for all 1, 1¼, 1½ and 2-ton trucks. Shown for the first time at the Cleveland Road Show. Don't miss it.

BOOTH NEH 40

DITWILER MFG. CO.

GALION, OHIO

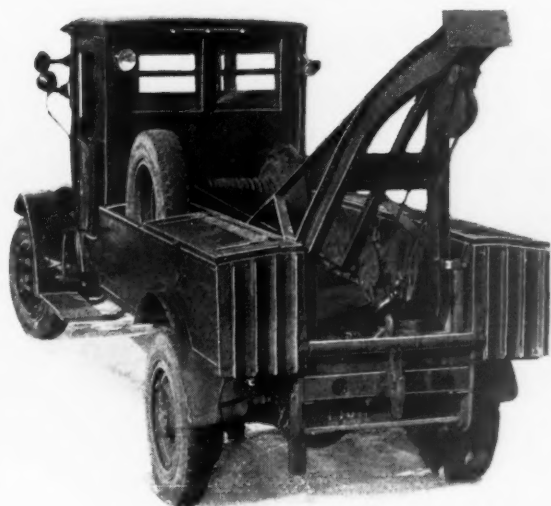
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Fisher Trucks' Performance Is Positive



IN WRECKER AND TOWING SERVICE WHERE FLEXIBILITY, DEPENDABILITY AND POWER ARE REQUISITES, FISHER TRUCKS GIVE NEVERFAIL PERFORMANCE



Fisher

**STANDARD MOTOR
TRUCK CO.**

ALBERT FISHER, President
DETROIT, MICH., U. S. A.

Standard
MADE IN
U.S.A.

DON'T THE DEPENDABLE PRODUCTS OF A STABLE MANUFACTURER, WHO HAS KEPT PACE WITH THE HAULAGE DEMANDS OVER A LONG NUMBER OF YEARS AND WHO HAS ADOPTED MANUFACTURING METHODS TO ALLOW CONSISTENT PRICING OF ALL MODELS—APPEAL TO YOU AS A SAFE PROPOSITION ON WHICH TO BUILD A LASTING, PROFITABLE BUSINESS?